UNDERGROUND STORAGE TANK REMOVAL REPORT

East Fort Baker, CA

Indefinite Delivery Contract For The Removal and Disposal of Underground Storage Tanks & PCB Transformers in Northern California

Contract No. DACW05-94-D-0020
Delivery Order No. 15
Remove and Dispose of USTs
East Fort Baker, CA

Prepared for:

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January 1998

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CLOSURE REPORT

Underground Storage Tank Removal UST 1 and UST 2 East Fort Baker, CA January, 1998

I. Introduction

This report describes the underground storage tank (UST) removal activities at East Fort Baker in Marin County, California. This work was performed by Remedial Constructors, Inc. (RCI) as part of contract No. DACW05-94-D-0020, Delivery Order No. 15.

Prior to the start of work, RCI submitted a Project Work Plan (PWP) to the USACE for approval. The General Management Plan (GMP), which had previously been submitted to, and approved by, the USACE, describes the procedures employed by RCI personnel during the execution of Delivery Orders awarded under the contract. The PWP supplements the GMP and relates to the procedures being employed for this specific Delivery Order.

II. Summary of Work

East Fort Baker is located just north of the Golden Gate Bridge overlooking San Francisco Bay in Marin County. Access to the site can be obtained by taking the Sausalito exit from Highway 101, then taking either Bunker Road or East Road into East Fort Baker. Public access to East Fort Baker is unrestricted. The installation was established in 1866 to fortify San Francisco Harbor. East Fort Baker encompasses approximately 91 acres and is currently a sub-installation of Fort Lewis.

Work under this delivery order consisted of the removal and disposal / recycling of two (2) four-in-one underground storage tanks (USTs) and associated 2" underground piping; the removal and disposal / recycling of 746 lineal feet of 1-1/2" underground Fuel Distribution System (FDS) piping; and backfilling, compaction and restoration of

the sites to pre-project conditions. This delivery order called for a separate Closure Report for the UST removals and the FDS piping removals. This Closure Report is concerned with the UST removals and 2° UST fuel piping only. The two USTs were located in the hillside approximately 600 feet to the north of the wharf at Horseshoe Bay at East Fort Baker. Each UST contained four separate 1,000 gallon chambers. The chambers of each tank were connected to a manifold piping system. The manifold system was constructed so that each tank had two 1,000 gallon gasoline and two 1,000 diesel chambers. One gasoline and one diesel fuel line ran from the tank manifold piping at the tanks to fuel dispensers located on the wharf. The dispensers were gravity fed. The dispensers at the wharf had been previously removed and the fuel piping was open at the wharf ends.

On November 15, 1996 RCI removed 2,831 gallons of liquids from UST 1. On November 25, 1996 an additional 475 gallons of liquids was removed from the UST fuel piping. UST 2 did not contain any liquids and appeared to have never been used. On November 26, 1996 1,170 linear feet of UST fuel piping was removed from the pipeline excavation. On November 27, 1996 UST 1 was removed from the excavation using a crane. On December 10, 1997 UST 2 was also removed from the excavation using a crane.

On November 27, 1996 RCI collected two soil samples from the tank excavation beneath UST 1 and ten soil samples from the fuel piping trench. Seven soil samples were also collected from the stockpiled soil generated during the removal activities. In addition, two QA and QC samples were also collected.

On December 10, 1996 RCI collected two soil samples from the tank excavation beneath UST 2 and five additional soil samples from the stockpiled soil. One additional QA and QC sample were also collected.

Table 1 summarizes information on the tanks, dates of excavation and removal, waste handlers, and regulatory personnel present. Figure 1 shows the East Fort Baker Area Map. Figure 2 shows the East Fort Baker Location Map. Figure 3 shows the UST Sample Locations. Appendix A contains photographs which document the tank removal process. Appendix B contains copies of the waste disposal manifests. Appendix C contains the complete laboratory analytical reports and associated Chain of Custody documents.

III. Observations During Tank Removal

UST 1 and UST 2 were custom made 4,000 gallon USTs. Each tank was made with four separate 1,000 gallon chambers. Information provided by Fort Baker personnel indicated that at each tank, two of the chambers were plumbed for diesel and two were plumbed for gasoline. The bottom of UST 1 was installed at a depth of 17 feet bgs. The bottom of UST 2 was installed at a depth of 12 feet bgs. Each of the chambers in UST 1 contained a fuel / water mixture. UST 2 was empty and appeared to have never been used. Both of the tanks were removed from a single irregularly shaped excavation with final dimensions of approximately 50 feet by 30 feet by 20 feet deep. After removal both tanks were inspected. UST 1 was in poor condition and was visible areas of corrosion. The soils beneath UST 1 were visually stained, had a high hydrocarbon odor and were obviously contaminated. UST 2 was in good condition. There was no indication of previous use of this tank or signs of contamination of the soils directly beneath the tank. However, there were indications that the leaks from UST 1 had impacted the soils beneath UST 2 at 17 feet bgs and deeper. The UST fuel piping was also found to be in poor condition with numerous signs of corrosion and obvious contamination at the tank and fuel vault pipe connections.

Initially, the excavations were left open pending direction from the COR. Upon approval from the USACE, RCI remobilized to the site to overexcavate to remove contaminated soils. The clean overburden under UST 2 was removed from the excavation and stockpiled. Approximately three feet of contaminated soil was then removed from the bottom of the excavation from 17 feet bgs to 20 feet bgs. After overexcavation, the bottom and sides of the excavation still showed signs of significant contamination. Under direction from the COR, no further overexcavation was performed. RCI lined the excavation with visquine and backfilled with a mixture of clean native and imported material. A total of 623 tons of contaminated soils were hauled off-site for disposal / recycling. No groundwater was encountered during excavation at this site.

IV. Soil Sampling

On November 27, 1996 nineteen soil samples were collected. Two samples, T1-N and T1-S were collected from beneath the ends of tank UST 1 at a depth of 17 feet

bgs. Ten samples, PL-1, PL-2, PL-3, PL-4, PL-5, PL-6, PL-7, PL-8, PL-9 and PL-10 were collected from the UST fuel piping trench at depths from 2 to 12 feet bgs. Seven samples, SP-1, SP-2, SP-3, SP-4, SP-5, SP-6 and SP-7 were collected from the excavated soil stockpiles. In addition, two QA and two QC samples were also collected.

Soil sample analyses were based on the historical contents of UST 1, reported to be gasoline and diesel. Table 2 presents the sample descriptions, sample depths, analysis performed, and sample locations.

On December 10, 1996 seven soil samples were collected. Two samples, T2-N and T2-S were collected from beneath the ends of tank UST 2 at a depth of 12 feet bgs. Five samples, SP-8, SP-9, SP-10, SP-11 and SP-12 were collected from the excavated soil stockpiles. In addition, one QA and one QC samples were also collected.

Soil sample analyses were based on the historical contents of UST 2, reported to be gasoline and diesel. Table 2 presents the sample descriptions, sample depths, analysis performed, and sample locations.

V. Methods and Procedures - Soil Sample Collection

The soil sampling associated with the UST removals were collected under the oversight of the Marin County Office of Waste Management and conformed with the State of California LUFT Manual guidelines for sampling associated with tank removal. Specifically, the sampling procedures were as follows:

- All sampling equipment was thoroughly cleaned prior to use.
- The soil samples were collected from the backhoe bucket. Approximately three
 inches of soil were removed from the exposed surface prior to driving a sample
 tube to collect the soil sample.

- Immediately after the sample was collected, each end of the stainless steel sample tube was capped with Teflon sheet and capped and labeled. Care was taken to assure that no head-space was present in the sample tube.
- After labeling, the soil samples were placed in an airtight bag and immediately
 placed into a refrigerated ice chest. Samples then delivered to a laboratory
 certified by the USACE and the State of California to perform the specified
 analyses.
- Chain of custody documentation was maintained for sampling events. Copies are provided in Appendix C.

VI. Laboratory Analysis

Soil samples collected during this tank removal project were analyzed by EMAX Laboratories.

At UST 1, tank excavation soil sample T1-N contained 16,000 mg/kg TPHg, 8,300 mg/kg TPHd, 3,700 μ m/kg Toluene, 4,200 μ m/kg Ethylbenzene and 25,000 μ m/kg Xylenes. Sample T1-S contained 13,000 mg/kg TPHg, 7,600 mg/kg TPHd, 2,200 μ m/kg Ethylbenzene and 12,000 μ m/kg Xylenes. All other analytes were not detected above the laboratory's reporting limit.

At UST 2, tank excavation soil sample T2-N contained 14.7 mg/kg Lead. Sample T2-S contained 24 mg/kg TPHd and 67.2 mg/kg Lead. All other analytes were not detected above the laboratory's reporting limit.

At the pipeline trench excavation soil sample PL-1 contained 24,000 mg/kg TPHg, 13,000 mg/kg TPHd, 1,700 μ m/kg Toluene, 5,400 μ m/kg Ethylbenzene, 26,000 μ m/kg Xylenes and 14.8 mg/kg Lead. Sample PL-2 contained 9.9 mg/kg TPHg and 95 mg/kg TPHd. Sample PL-3 contained 45 mg/kg TPHd. Sample PL-5 contained 18.5 mg/kg Lead. Sample PL-6 contained 290 mg/kg TPHd and 51.3 mg/kg Lead. Sample PL-8 contained 25 mg/kg TPHd and 15.3 mg/kg Lead. Sample PL-9 contained 82 mg/kg TPHd and 196 mg/kg Lead. Sample PL-10 contained 865 mg/kg Lead. All other analytes were not detected above the laboratory's reporting limit.

At the soil stockpiles soil sample SP-1 contained 32.5 mg/kg Lead. Sample SP-2 contained 120 mg/kg TPHd and 13.6 mg/kg Lead. Sample SP-3 contained 260 mg/kg TPHd. Sample SP-6 contained 98 mg/kg TPHd and 15.2 mg/kg Lead. Sample SP-7 contained 60 mg/kg TPHd. Sample SP-8 contained 19.2 mg/kg Lead. Sample SP-9 contained 16.5 mg/kg Lead. Sample SP-10 contained 20.6 mg/kg Lead. Sample SP-11 contained 36.7 mg/kg Lead. Sample SP-12 contained 21.4 mg/kg Lead. All other analytes were not detected above the laboratory's reporting limit.

Table 3 presents the laboratory analytical results of all samples. The complete laboratory analytical reports are included in Appendix C.

VII. Excavation Backfilling

The excavations were measured and mapped after the tanks and piping was removed and overexcavation was performed. The excavation volume at was measured at 986 cubic yards. As directed by the COR, the tank excavation was lined with visquine and backfilled with a mixture of clean native and imported soil obtained from a local source. The UST fuel pipe trench was also backfilled with a mixture of clean native and imported soil obtained from a local source. The surfaces at of the tank and pipe trench excavations were graded to match the existing areas. Areas of asphalt pavement and aggregate base were also replaced to matching existing surfaces.

VIII. Conclusions

On the basis of our sampling, analysis and observations during the removal of the underground storage tanks, Remedial Constructors, Inc. concludes that:

 Visual observations of the tank excavation and analytical results for soil samples from UST 1 and UST 2 indicate that obvious hydrocarbon contamination is still present in the tank excavation. Additional work to delineate the extent of soil contamination at this site is recommended. Analytical results for soil samples from UST fuel piping at were below the Preliminary Remediation Goal (PRG) of 1,000 mg/kg TPHd at this site. These results indicate that there is no threat to human health and/or the environment at this site and it is expected that this site will be closed.

VIIII. Certification

To the best of our knowledge, all statements and information provided above are true and correct.

Elizabeth Gillis Raley, PE

CA Registered Professional Engineer, No. C34700

2-2-98

Date



TABLES

	ANK REMOVAL	gement	Depth Removel	gth Top Bottom	(leal)	11 17 11/27/97	Erickson, Inc. Contaminated soil recycled at Bay Area Soil's Richmond, CA facility. Concrete fuel vaults cleaned on-site, broken up and disposed of as scrap at local landfill. Cleaned and disposed of as scrap at Erickson's Richmond, CA yard. Cleaned and disposed of as scrap at Erickson's Richmond, CA yard. Recycled at Evergreen Oil's Newark. CA facility and Romin's East Data All Contracts of the contracts
	TABLE 1 - SUMMARY OF TANK REMOVAL UST 1 and UST 2 East Fort Baker, CA	• Management	Dimensions	gth Top	(100.)		Erickson, Inc. Contaminated soil recycled at Bay Area Soil's Richmond, CA facility. Cleaned and disposed of as scrap at Erickson's Richmond, CA yard. Concrete fuel vaults cleaned on-site, broken up and disposed of as scrap at Erickson's Richmond, CA yard. Cleaned and disposed of as scrap at Erickson's Richmond, CA yard. Recycled at Evergreen Oil's Newark, CA facility and Romic's East Pa
	TABLE 1 - SUMMAR UST 1 a East Fort	UST 1 and UST 2 Remedial Constructors, Inc. 11/13/96 Marin County Office of Waste Management 10/22/96 Tim Underwood	Contents	Diam (Fe	Diesel /	Diesel /	Inc. ated soil recycled at and disposed of as so fuel vaults cleaned o and disposed of as so and disposed of as so at Evergreen Oil's Ne
		UST 1 and UST Remedial Const 11/13/96 Marin County O 10/22/96 Tim Underwood	city Type /		s/Ms 0		
structors, Inc		/: Permit: nel Oversight:	State Capacity ID No. (Gallons)		4 by NA 1,000	4 by NA 1,000	Soil: Tanks Appurtenances: Tank Contents:
Remedial Constructors, Inc.		Tank Numbers: Contractor: Date Started: Permitting Agency: Date of Removal Permit: Regulatory Personnel Oversight:	Sank No.		UST 1	UST2	Tank Transporter: Final Disposition of Soil: Final Disposition of Tanks Final Disposition of Appurtenances: Final Disposition of Tank Contents:

Page 1 of 1

Tank Type SW = Single Wall; DW = Double Wall
Material: TC = Tar Coated; S = Steel; S-FG = Steel coated with Fiberglass; FG = Fiberglass; C = Concrete
4 by 1,000 = Custom built tank consisting of four separate 1,000 gallon compartments. Two diesel and two gasoline.

Notes:

	nemediai Constructors,	i. Inc.		
			TABLE 2 - SUMMARY OF SAMPLING	57
			Tank Removal - UST 1 and UST 2	2
			East Fort Baker, CA	
Sample ID	Depth (ft)	Analysis	Sample Coation	
Tank Excavation	ion Soil Samples			Sample Description
7-1-N	17	TPHg, TPHd, BTEX, Lead	UST 1 North End	Sand ond Grown with the
T1-S	17	TPHd, BTEX,		Sand and Gravel W/ silty clay matrix
T2-N	12	TPHg, TPHd, BTEX, Lead	UST 2 North End	Sand and Gravel W/ silty clay matrix
T2-S	12		UST 2 South End	Sand and Gravel W silty clay matrix
Pipeline Trenc	Pipeline Trench Excavation Soi	Soil Samples		
PL-1	12	TPHg, TPHd, BTEX, Lead	UST Pipeline Trench	Sand and Gravel w/ cilty cloy mothic
PL-2	8	TPHg, TPHd, BTEX, Lead	UST Pipeline Trench	and Gravel w/ silty
PL-3	2	TPHg, TPHd, BTEX, Lead	UST Pipeline Trench	and Gravel W/ silty
PL-4	2	TPHg, TPHd, BTEX, Lead	UST Pipeline Trench	and Gravel W/ silly
PL-5	ວ	TPHg, TPHd, BTEX, Lead		and Gravel W/ silly
PL-6	2	TPHg, TPHd, BTEX, Lead	UST Pipeline Trench	and Gravel W/ silty
PL-7	က	TPHd, BTEX,		and Gravel W
PL-8	ო	PHd, BTEX,		and Gravel W
PL-9	ო	TPHg, TPHd, BTEX, Lead	UST Pipeline Trench	Sand and Grand IIII clay matrix
PL-10	2	TPHg, TPHd, BTEX, Lead	UST Pipeline Trench	sility clay
Stockpile Soil Samples	Samples			Caria and Clavel W Siny Clay Illatity
SP-1		TPHg, TPHd, BTEX, Lead	Soil Stockpile	Sand and Gravel w/ cilty clay matrix
SP-2	•	TPHg, TPHd, BTEX, Lead	Soil Stockpile	Sand and Gravel W silty oldy Illatilix
SP-3	•	TPHg, TPHd, BTEX, Lead	Soil Stockpile	Sand and Gravel W. silty clay matrix
SP-4	•	TPHd, BTEX, Lead	Soil Stockpile	Sand and Gravel w/ silty clay matrix
SP-5	•	TPHd, BTEX, Lead	Soil Stockpile	Sand and Gravel W/ silty clay matrix
SP-6		TPHd, BTEX, Lead	Soil Stockpile	
SP-7	ı	TPHd, BTEX, Lead	Soil Stockpile	
8-48 0.00	•	TPHd, BTEX, Lead	Soil Stockpile	2 d 2
8P-9	•.	TPHd, BTEX, Lead	Soil Stockpile	20.00
SP-10	•	PHd, BTEX, Lead	Soil Stockpile	clay
SP-11	4	TPHd, BTEX, Lead	Soil Stockpile	Sand and Gravel w/ silty clay matrix
OF-12	-	IPHg, TPHd, BTEX, Lead	Soil Stockpile	Sand and Gravel w/ silty clay matrix

Total petroleum hydrocarbons as gasoline (Modified EPA SW-846 Method 8015).
Total petroleum hydrocarbons as diesel (Modified EPA SW-846 Method 8015).
Benzene, Toluene, Ethylbenzene, and total Xylenes (Modified SA-845 Methods 5030/8020).
Lead (Metals by ICP EPA Method 3050 / 6010)

TPHg = TPHd = BTEX = Lead = Page 1 of 1

Remedial (Remedial Constructors, Inc.	j.						
	•		TABLE 3 - BES	TABLE 3 - BESUITS OF SOIL CAMPILE ANALYSIS	OX IAMA E IMA	·		
					WILE ANALYS	'n		
			Tank F	Tank Removal - UST 1 and UST 2	nd UST 2			
				East Fort Baker, CA	VA V			
Sample	o de moo	TPHg as	TPHd as			Ethvi-	Total	
	Sample	Gasoline	Diesel	Benzene	Toluene	benzene	Xvlenes	7 0 0
Tank Excava	Fank Excavation Soil Samples	(mg/kg)	(mg/kg)	(µg/kg)	(µg/kg)	(µg/kg)	(µq/kg)	(ma/ka)
- V	coll callibles							18
Z (11/27/96	16,000	8,300	ND (1210)	3.700	7 200	000	
٠- <u>-</u> -	11/27/96		7,600		ND (1232)	0000	25,000	ND (12.1)
N-7-1	12/10/96	(29) QN	ND (2.69)	ND(6.72)	ND/ 6 72)	ND/ 6 70)	12,000	ND (12.3)
12-5	12/10/96		24	ND (6.08)	ND (8.08)	ND (0.02)	ND (20,2)	14.7
Pipeline Tren	Pipeline Trench Excavation Soil Samples			11	(00:00)	ND (6.08)	ND (18.2)	67.2
PL-1	11/27/97	24,000	13 000	ND (4949)	001			
PL-2	11/27/97	6.6	9.5		00/1	5,400	26,000	14.8
PL-3	11/27/97	-	45	ND (6.60)	ND (5.81)	ND (5.81)	ND (17.4)	ND (11.6)
PL-4	11/27/97	(29) QN	ND (2.67)	ND (0.03)	ND (6.69)	(69.9) ON	ND (20.1)	ND (13.4)
PL-5	11/27/97	ND (.58)	ND (2.31)	ND (6.07)	ND (6.67)	ND (6.67)	ND (20)	ND (13.3)
PL-6	11/27/97	1~	200	ND (0.19)	ND (5.79)	ND (5.79)	ND (17.4)	18.5
PL-7	11/27/97	1 ∼	ND (9.49)	ND (0.13)	ND (6.13)	ND (6.13)	ND (18.4)	51.3
PL-8	11/27/97	1		ND (6.05)	ND (6.05)	ND (6.05)	ND (18.1)	ND (12.1)
PL-9	11/27/97	1~	60	ND (6.12)	ND (6.12)	ND (6.12)	ND (18.4)	15.3
PL-10	11/27/97	4 -	ND (9.39)	ND (6.28)	ND (6.28)	ND (6.28)	ND (18.8)	196
Stockpile Soil	Samples	71	(60:3)	ND (5.98)	ND (5.98)	ND (5.98)	ND (17.9)	865
	11/27/97	ND (61)	(a) (a) UN					
SP-2	11/27/97	·」 ~	120	ND (6.14)	ND (6.14)	ND (6.14)	ND (18.4)	32.5
SP-3	11/27/97	ND (56)	280	(06.6)	ND (5.96)	ND (5.96)	ND (17.9)	13.6
SP-4	11/27/97	(9) QN	ND (2.4)	ND (8.04)	ND (5.64)	ND (5.64)	ND (16.9)	ND (11.3)
SP-5	11/27/97	ND (.57)	ND (2 20)	ND (5.34)	(F.01)	ND (6.01)	ND (18)	ND (12)
SP-6	11/27/97	ND (.57)	0.8	(1/3) CIV	ND (5.71)		ND (17.1)	ND (11.4)
SP-7	11/27/97	ND (57)	000	(3.00) (1.00)	ND (5.66)	ND (5.66)	ND (17)	15.2
SP-8	12/10/96	ND (61)	ND (9.44)	ND (5.74)	ND (5.74)	ND (5.74)	ND (17.2)	ND (11.5)
SP-9	12/10/96	ND (56)		ND (6.11)	ND (6.11)	ND (6.11)	ND (18.3)	19.2
SP-10	12/10/96	ND (.65)			ND (5.65)	ND (5.65)	ND (16.9)	16.5
SP-11	12/10/96	ND (.61)	ND (2.45)	ND (6.49)	ND (6.49)	ND (6.49)	ND (19.5)	20.6
SP-12	12/10/96	ND (63)	ND (2.53)	•	ND (6.13)	ND (6.13)	ND. (18.4)	36.7
		1001 21	ND (2.53)	ND (6.34)	ND (6.34)	ND (6.34)	ND (19)	21.4
								+:

Notes:

TPHg = TPHd = BTEX =

Lead =

NA H

Total petroleum hydrocarbons as gasoline (Modified EPA SW-846 Method 8015).

Total petroleum hydrocarbons as diesel (Modified EPA SW-846 Method 8015).

Benzene, Toluene, Ethylbenzene, and total Xylenes (Modified SA-845 Methods 5030/8020).

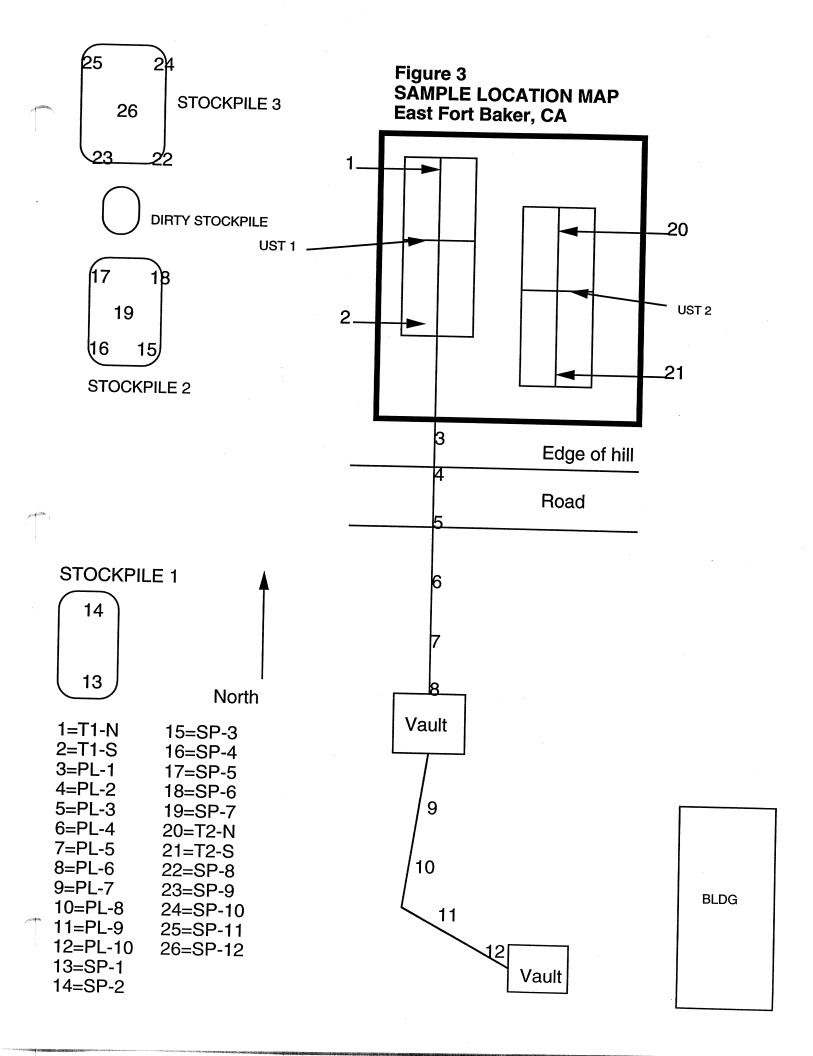
Lead (Metals by ICP EPA Method 3050 / 6010)

Not sampled / analyzed

Not Detected above the method detection limit shown in parenthesis

FIGURES





APPENDICES

APPENDIX A Photographic Record



Contract No. DACW05-94-D-0020

Remedial Constructors, Inc.

Stockton, CA

Photo - 1

November 13, 1996

Exposing USTs in hillside above wharf.



Contract No. DACW05-94-D-0020

Remedial Constructors, Inc.

Stockton, CA

Photo - 2

November 13, 1996

Pipeline running from USTs to wharf prior to excavation.



Contract No. DACW05-94-D-0020

Remedial Constructors, Inc.

Stockton, CA

Photo - 3

November 14, 1996

Exposing pipeline running from USTs to wharf.



Contract No. DACW05-94-D-0020

Remedial Constructors, Inc.

Stockton, CA

Photo - 4

November 15, 1996

Exposing valve box in pipeline running from USTs to wharf.



Contract No. DACW05-94-D-0020

Remedial Constructors, Inc.

Stockton, CA

Photo - 5

November 15, 1996

Valve box after removal of valves.



Contract No. DACW05-94-D-0020

Remedial Constructors, Inc.

Stockton, CA

Photo - 6

November 15, 1996

Excavation of UST pipeline from valve box to USTs.



Contract No. DACW05-94-D-0020

Remedial Constructors, Inc.

Stockton, CA

Photo - 7

November 18, 1996

Excavation of UST pipeline at hillside. Note contaminated soil.



Contract No. DACW05-94-D-0020

Remedial Constructors, Inc.

Stockton, CA

Photo - 8

November 18, 1996

Excavation of UST pipeline at hillside. Note contaminated soil and free product.



Remedial Constructors, Inc.

Photo - 9

Placing dry ice in UST 1.

Contract No. DACW05-94-D-0020

Stockton, CA

November 27, 1996



Remedial Constructors, Inc.

Photo - 10

Checing LEL in UST 1.

Contract No. DACW05-94-D-0020

Stockton, CA

November 27, 1996



Contract No. DACW05-94-D-0020

Remedial Constructors, Inc.

Stockton, CA

Photo - 11

November 27, 1996

Removal of UST 1 via crane.



Contract No. DACW05-94-D-0020

Remedial Constructors, Inc.

Stockton, CA

Photo - 12

November 27, 1996

Loading UST 1 for transportation to disposal facility.



Contract No. DACW05-94-D-0020

Remedial Constructors, Inc.

Stockton, CA

Photo - 13

December 10, 1996

Removal of UST 2 via crane.



Contract No. DACW05-94-D-0020

Remedial Constructors, Inc.

Stockton, CA

Photo - 14

December 10, 1996

Removal of UST 2 via crane. Note dented tank condition.



Contract No. DACW05-94-D-0020

Remedial Constructors, Inc.

Stockton, CA

Photo - 15

June 30, 1997

Compacting excavation bottom.



Contract No. DACW05-94-D-0020

Remedial Constructors, Inc.

Stockton, CA

Photo - 16

June 30, 1997

Compacting excavation bottom.



Contract No. DACW05-94-D-0020

Remedial Constructors, Inc.

Stockton, CA

Photo - 17

June 30, 1997

Lining excavation with plastic.



Remedial Constructors, Inc.

Photo - 18

Backfilling excavation.

Contract No. DACW05-94-D-0020

Stockton, CA

June 30, 1997



Contract No. DACW05-94-D-0020

Remedial Constructors, Inc.

Stockton, CA

Photo - 19

July 2, 1997

USTs 1 and 2 final grade.

APPENDIX B Manifests

1	UNIFORM HAZAKDOUS	Generator's US EPA ID No.		anifest Docum	ent No.	2. Page 1	Information in t	mento, Califo
	3. Generator's Name and Mailing Address	AC1001/3/1	18083	143		3 1 of 1	is not required	by Federal I
	U.S. APPLY CORP OF EN 1325 TST SACDAN 4. Generator's Phone (916) 55 7 1 5. Transporter 1 Company Name	VISIREERC			A. State	Manifest Documen		150 15
	1325 JST SACHAR	ENTO CA 9	5814-2	チンン	B. State	Generator's ID	<u> </u>	4345
1	5. Transporter 1 Company Name	6. US EPA ID			- 4-31	<u>होशोहो संस</u>	- 4 5 34	
	ERICKS- 1				44.00	Transporter's ID -		
	7. Transporter 2 Company Name	C CADO 8. US EPA ID	Number	13176	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Transporter's ID	19) 23	37/3
				1 1 1		porter's Phone		
	9. Designated Facility Name and Site Address Enickson, Inc.	10. US EPA ID	Number		G. State	Facility's ID		
	255 Parr Blvd.				H. Facili	100091	4500	126.1
1	Richmond, CA. 94801		0 9 4 6	5 3 9 2		**************************************	10)235-1	
11	11. US DOT Description (including Proper Shipping N		umber)	No.	tainers Type	13. Total Quantity	14. Unit Wt/Vol 1. W	osio Albimbe
G	"NON-RCRA Hazardow; Wast						Stole	
E	Waste Empty Storage Tar	ik.		OPY	T_1P	14000	P EPA	(21)
E							Sharp	100
<u> </u>	С.						EPA/	Other
9							State	
Ì	d.						EPA/	Other .
	a.						State	
37							.∃\$\ \ /	ejija .
	Additional Descriptions for Materials Listed About Bittorias Specifical City		7		K. Handlin	io Codes for Wasie	tinger Above	
	ventalista (naturalista (naturalista (naturalista (naturalista (naturalista (naturalista (naturalista (natural	≨) de al anti-color (Europe de color				01		
	a deciday lee seratoo (ea	idkok (Geneticie)				330	1	
13	 Special Handling Instructions and Additional Inform Keep away from sources a 	POIC	BA	KER			inaniana da	4.2
	U.G.S.T.'s 24 Hr. Contact DAC W 65 - 94 - 1)-00:	ot Name. (VAN) H	nays Wedo Allock	Mai din Phone	its wh	en working	around	
	DACW 65-94-17-00:	20 100#	iL	N	16HT -	9110-1081	454	
16	GENERATOR'S CERTIFICATION: I hereby declare packed, marked, and labeled, and are in all respec							ıre classifier
	If I am a large quantity generator I certify that I	l hanna an ann		assisting to b	ppiicabie ii	mernanonal and na	nonal government	regulations.
	mreat to human health and the environment. OR	the practicable method of treatiff I am a small quantity general	ment, storage, or	e and toxicity disposal curi	of waste rently avail	generated to the a able to me which n	egree I have dete ninimizes the prese	ermined to nt and fut
Pri	waste management method that is available to me	and that I can afford. Signature	//	A good Idii	ii ellori to	minimize my waste	generation and s	elect the b
17	Transporter 1 Acknowledgement of Receipt of Mate	IN E WE AR MILE	MON	ON TX	HAIF	OF USACE	Month 1	Day 18
Pri	Typed Name	rials Signature	2			/	Month	1/ 1/
18.	Transporter 2 Acknowledgement of Receipt of Mater	iak Pa	uf	Hac	of	<u> </u>	11/2	17 12
Prir	ted/Typed Name	Signature	· · · · · · · · · · · · · · · · · · ·				Month	Day
19.	Discrepancy Indication Space							<u> </u>
20.	Facility Owner or Operator Certification of receipt of red/Typed Name	f hazardous materials covered Signature	by this manifest e	xcept as note	d in Item 1	9.		
1								

of California—Enviror Approved OMB No. 2 print or type. Forn	2050-0039 (Expire				tions on bac	k of page	e 6.	Departm	nent of Toxic Substances Sacramento, California
	RM HAZARDO STE MANIFES	ous	nerator's US EPA	10 No. 3 1 1 8 0 8	Manifest Docu		2. Page 1		on in the shaded areas uired by Federal law.
ll 115	Name and Mailing ARMY CORI	Address P OF ENGI	VEERS			A. State	Manifést Documen	t Number	95593.05
4. Generator's	Phole (GAMEN	1923 4 3 1923 4 95:	on Sack	AMENTO CA	95814-29	F 20% CS 0000 CS 0000			# 1 P
	1 Company Name	373 1 017	6. U	57 -5241 IS EPA ID Number			Transporter's ID		
ELCUSOR 7. Transporter	N (NC) 2 Company Name		194	D 0094	6639	D. Trans	porter's Phone 6	10-23	5-1393_
			1 1	I I I I I			Transporter's ID		
•	Facility Name and S	iite Address	19. U	IS EPA ID Number		G. State	Focility's 1D 4 D O O 9	41616	1392
1	arr Blvd. ond,CA. 94	1801	Icla	<u> 10 0 0 4</u>	اداداءاما	H. Facili	fy's Phone		
1	•	Proper Shipping Nan				Containers	13. Total	14. Unit	5 –1393
a. NON-R	CRA Hazaro	dous Waste	Solid		100.	Туре	Quantity	Wt/Vol	I. Waste Number.
1		orage Tank	COLLA		00	TP	14 0 0 0	Р	512 EPA/Other NONE State
									EPA/Other
c.									State EPA/Other
d.									State
									EPA/Other
	criptions for Materi Empty	als Listed Above Storage Ta	nk(s)# /	7371			ing Codes for Wast	es Listed Ab b.	ove and a second
lbs.Dr	Tan 7 y I ce Per	k(s) ĥave 1000 Gall	been ine on Capac	rted with 1 ity.	.5. t	c.		d.	
		d Additional Informat							
Weep a	away from .T.'s 24 H	sources of lr. Contact	ignition NameM	n. Always w ark Hallock	ear hard _& Phone	(916	5) 686–615	4_ <i>EV</i>	4
16. GENERATOR	'S CERTIFICATION	N: I hereby declare t	hat the contents o	f this consignment are on for transport by hig	fully and accurat	المسائد والمسام	above by proper s		1
if I am a law	ge quantity genera practicable and the	tor, I certify that I hat I have selected the	ave a program	in place to reduce the	e volume and to	cicity of wast	e generated to the	degree I h	ave determined to be
	ement method that	environment; OR, if is available to me ar	nd that I can affo		e made a good	faith effort t	o minimize my was	te generatio	on and select the best
17. Transporter 1	Acknowledgement	of Receipt of Materi	CF USAC	/ Plashell	12/ OK	DC HALF	OF USACE	Mon	Day Yea
Printed Typed No.	ρ	Reed do Receipt of Materia	.	ignature Phil	o R	erd		Mont Î	h Day Yea 2 1 0 9
Printed/Typed Na		or materia		ignature				Mont	th Day Yea
19. Discrepancy la	idication Space								
-									
20. Facility Owner Printed/Typed Na	or Operator Certif	ication of receipt of		ials covered by this m	anifest except as	noted in Item	19.	44	L D V
DAVIC	· SAT	70		DAVE	SAro			Mont	L Day Yea

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL F. DNSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-85

30000000

DAY OR NIGHT TELEPHONE (510) 235-1393

CERTIFICATE

CERTIFIED SERVICES COMPANY

255 Parr Boulevard • Richmond, California 94801

NO. 13145

CUSTOMER.	CONST
JOB NO. 1135급1	

FOR: ERICKSON, INC	TANK NO19012
LOCATION:BICHMOND	DATE:TIME:
TEOTAGE PISHAL CASTRUTIZIA AMEN	_ LAST PRODUCT
	ed that this tank is in accordance with the American to be in accordance with its assigned designation. at the time the inspection herein set forth was all qualifications and instructions.
TANK SIZE GALLON TANK	CONDITIONGAME FOR FIRE
CHT OFEN, PROCESSED, AND THEREFORE I	GERMITTE WER ALL OUR FERMITTED HAZARBOUS
•	
STANDARD SAFETY DESIGNATION SAFE FOR MEN: Means that in the compartment or space so d 19.5 percent by volume; and that (b) Toxic materials in the atri judgment of the Inspector, the residues are not capable of pro while maintained as directed on the Inspector's certificate. SAFE FOR FIRE: Means that in the compartment so design atmosphere is below 10 percent of the lower explosive limit; anot capable of producing a higher concentration that paramits.	the gas-free conditions of the above tanks, or if in any doubt, This permit is valid for 24 hours if no physical or atmospheric designated (a) The oxygen content of the atmosphere is at least mosphere are within permissable concentrations; and (c) In the roducing toxic materials under existing atmospheric conditions gnated (a) The concentration of flammable materials in the and that (b) In the judgment of the Inspector, the residues are d under existing atmospheric conditions in the presence of fire and further, (c) All adjacent spaces have either been cleaned ted, or in the case of fuel tanks, have been treated as deemed
e undersigned representative acknowledges receipt of this cerwind was issued. Hancita Lucyo REPRESENTATIVE TITLE	ertificate and understands the conditions and limitations under

DAY OR NIGHT TELEPHONE (510) 235-1393

CERTIFICATE

CERTIFIED SERVICES COMPANY

255 Parr Boulevard • Richmond, California 94801

NO. 13146

CUSTOMER		
JOB NO.	CONST	

	FOR	ERICKSON, II	∛C. TANK NO	3 9 3 7 3	_
LC	CATION:	RICHMOND	96 · DATE:	112/34 TIME: _	11:05
TEST METHOD	VISUAL C	SASTECH/1314 SMPN	LAST PRODU	СТ	5
This certificat	te is based	ve iouna ine condina	on to be in acco	ordance with it	ance with the American is assigned designation. In herein set forth was ons.
TANK SIZE	4000	GALLON TANK	CONDITIC	SA	AFE FOR FIRE
- WASTE FA	. INC. MEP . PROCESSE FILITY. . INC. HAS	(.3% LOWER EXPLO EBY CERTIFIES TH D. AND THEREFORE THE APPROPRIATE CHOCESSING	AT THE ABOVE DESTROYED A	NUMBERED 7 T OUR FERMI . AND HAS	TANK HAS DEEN TITED HAZARDOUS ACCEPTED THE TANK
In the event of an immediately stop changes occur.	y physical or at all hot work an	mospheric changes affecti d contact the undersigned	ng the gas-free con d. This permit is val	ditions of the abo id for 24 hours if	ve tanks, or if in any doubt, no physical or atmospheric
STANDARD SAFE FOR MEN: I 19.5 percent by vo judgment of the II while maintained a SAFE FOR FIRE: atmosphere is belinot capable of pro and while maintain	Means that in the clume; and that in spector, the rest directed on the Means that in ow 10 percent or ducing a higher ned as directed went the spread of the	DESIGNATION e compartment or space so (b) Toxic materials in the sidues are not capable of e Inspector's certificate. the compartment so de of the lower explosive limit concentration that permit on the Inspector's certificate.	o designated (a) The atmosphere are with producing toxic massignated (a) The control of the condition of the	e oxygen content of the concentration of the concentration of the concentration of the concentration condi	of the atmosphere is at least concentrations; and (c) In the sting atmospheric conditions flammable materials in the e Inspector, the residues are tions in the presence of fire es have either been cleaned ave been treated as deemed
e undersigned re which it was issued. Thanks TEPRESENTATIVE	epresentative ack	knowledges receipt of this	certificate and unde	erstands the cond	itions and limitations under

Liquid Disposal

Remove and Dispose of USTs Fort Baker, CA Delivery Order No. 15 Contract DACW05-94-D-0020

Date	Manifest Number	Gallons	Sludge (gal)	R.T. Miles	Facility	Progress Period
11/15/96	95780547*	1100	·-	134	ROMIC	
11/15/96	96434251*	1731		115	Evergreen	1
11/25/97	947845585*	475	-	115	Evergreen	•
3/19/97	96417200**	45	- -	115	Evergreen	2

Total Liquids 3,351

Total Sludge

____0

Total Miles

479

^{*} Liquid removed from USTs

^{**} Liquid removed from FDS Pipeline

DO NOT WRITE BELOW THIS LINE.

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19

Year

Printed/Typed Name

	ose print or type. Form designed for use on elite (12-pite UNIFORM HAZARDOUS	1. Generator's US EPA ID No.	Instructions on be		,	Department of Toxic Sacramento,	Substar Califor
	3. Generator's Name and Mailing Add	CIACIOIAIBILI	18018314	251	2. Page 1	Information in the sho is not required by Fed	deral la
	115 6000 0,000			A	anifest Docume	n Number	**
	4. Generator's Phone (Tib) 157-55	PAMENTO O A 4	[314-22]	, B. State G	merator's ID	9643	<u> 42</u>
	5. Transporter 1 Company Name	6. US EPA ID N	lumber	C. Store To	Insporter's ID	11111	L I
	14 to 1		111111		ter's Phone		
	7. Transporter 2 Company Name	8. US EPA ID N	lumber	1_1	nsporter's ID	(510) 235-13	93
I	9. Designated Facility Name and Site Address		11111	F. Transpor			
l	Address	10. US EPA ID N	umber	G. State Fa		areas at the same	
l	further to			H. Facility's	 Phone	11111	1
	11. US DOT Description (including Proper Shippin	ng Name Hayard Class at 10 N				510)795-4401	
	a.		nber) 12. No.	Containers Type	13. Total Quantity	14. Unit Wt/Vol 1. Waste N	umber
3	NON-RCRA Hazardous Wa	aste Liquids				State 2.21	
7	Used Oil		0.01	TITO	1171215	G EPA/Other NOVE	3 7 7
						Strate	
•	c.					EPA/Other	
						State	
r	d.				_1	EPA/Other	
						State	
1.	Additional Descriptions for Materials Listed Abov	Province in			111	EPA/Other	
	Used Oil			K. Handling C	odes for Waster		
15	5. Special Handling Instructions and Additional Inf			c.		l.	
	24 House C. 1					19.85	Sin S
	MA	MRK HALLOCK	DAY-	209-46	14-028	2	
-	6. GENERATOR'S CERTIFICATION		/VIGHT -	916-68		=	`
	GENERATOR'S CERTIFICATION: I hereby dec packed, marked, and labeled, and are in all res	lare that the contents of this consignm spects in proper condition for transpo	ent are fully and accurate rt by highway according to	y described above	by proper ship	pping name and are class	sified,
	If I am a large quantity generator, I certify the	at I have a program in place to re	duce the valume and taxio	in of	anonar ana nan	onai government regulat	ions.
L	economically practicable and that I have selecte threat to human health and the environment; O waste management method that is available to n Printed/Typed Name	R, if I am a small quantity generate no and that I am a ********************************	ent, storage, or disposal c r, I have made a good f	urrently available with effort to mini	to me which mi	rigree I have determined nimizes the present and	to be future
P	1.0110	Signature /1 A	2./				
1	7. Transporter 1 Acknowledgement of Receipt of M	FOF USACE / 444/	The ONBEH	PLFOF U.S	A.C.E	Month Day	19
Pri	Intell Typed Name Perfersion	Signature	1.01)		Month Day	Yes
18. Prin	Transporter 2 Acknowledgement of Receipt of Moted/Typed Name	oterials Vr	The state of the s	<u> </u>		1115	97
		Signature C				Month Day	Yea
19	Discrepancy Indication Space						
2	20. Facility Owner or Occurry Co.						
÷	0. Facility Owner or Operator Certification of receip trinted/Typed Name	t of hazardous materials covered by	this manifest except as no	ted in Item 10			

DO NOT WRITE BELOW THIS LINE.

Signature

Month

Day

Year

Printed/Typed Name	Signature	. /	Month Day Ye
MICHEL MPANCS ON PRINT OF VICE	The Miller	of conservery was	11/12/519
17. Transporter 1 Acknowledgement of Receipt of Materials		//	
Printed/Typed Name	Signature	- 0 / $/$.	Month Day Ye
WTANLEY D.W.LES	Sume	Mules	11/2559
18. Transporter 2 Acknowledgement of Receipt of Materials			
Printed/Typed Name	Signature		Month Day Ye
19. Discrepancy Indication Space			1

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.						
Printed/Typed Name	Signature	Month	1	Day		Y
·						
			- 1	1		

DO NOT WRITE BELOW THIS LINE.

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CASE

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Soil Disposal

Remove and Dispose of USTs Fort Baker, CA Delivery Order No. 15 Contract DACW05-94-D-0020

	Manifest			Progress
Date	Number	Tons	Facility	Period
4/7/97	20591	21.89	Bay area Soils	
4/7/97	20592	26.37	Bay area Soils	
4/7/97	20593	24.09	Bay area Soils	
4/7/97	20594	23.09	Bay area Soils	
4/7/97	20595	21.29	Bay area Soils	
4/7/97	20596	23.33	Bay area Soils	~
4/7/97	20597	22.23	Bay area Soils	
4/7/97	20598	24.11	Bay area Soils	
4/7/97	20599	25.83	Bay area Soils	
4/7/97	20600	22.65	Bay area Soils	
4/7/97	20601	26.43	Bay area Soils	
4/7/97	20602	21.98	Bay area Soils	
4/7/97	20603	22.08	Bay area Soils	
4/7/97	20604	23.33	Bay area Soils	2
4/7/97	20605	18.24	Bay area Soils	- .
4/7/97	20608	21.70	Bay area Soils	
4/7/97	20609	20.85	Bay area Soils	
4/7/97	20610	22.54	Bay area Soils	
4/7/97	20611	20.46	Bay area Soils	
4/7/97	20612	21.55	Bay area Soils	
4/7/97	20613	23.87	Bay area Soils	
4/7/97	20614	21.15	Bay area Soils	
4/7/97	20615	21.01	Bay area Soils	
4/7/97	20616	24.67	Bay area Soils	1
4/7/97	20617	17.79	Bay area Soils	
4/7/97	20618	11.84	Bay area Soils	
4/7/97	20619	25.94	Bay area Soils	
4/7/97	20620	22.89	Bay area Soils	

Total Soils 623.11

MATERIALS MANIFEST

GENERATO	R	
Site Address	Army Corps Of Engineers	
Mailing		
Phone :()	Fort Baker Sausalito,Ca	
). 501011	Dadounto, Da	Contact:
TRANSPORTE	R	
	Dillard Trucking	
Address		
	P.O.Box 579	
Phone :()	Byron,Ca.	Contact:
I hereby certify th		
	/ /	picked up at the generator site listed above.
Driver Name:	Henry Hali	Signature
Truck No.	991 - 300	
		Ship Date:
Time of Pick-Up:		Time of Delivery:
		Time of Delivery.
Consultant/Owne	er i	
Addross	RCI	
Address		
Phone :()	3233 Lance Dr.Unit 1 Stockton,Ca.	
	o to otton, o a	Contact:
I herby certify that	the above named material is consi	latant with at the control of
Form and Contam	inated Soil Description Form, and I	nas been properly described, classified and packaged, and is in
brober condition to	or transport according to applicable	regulation.
Name		Date:
		Date:
Recycling Facility	BAY AREA SOIL	
	2717 GOODBICK AVEN	LIE DICLIMOND, OA O (OO)
		UE RICHMOND, CA 94801
RECEIVED BY:	Car S	
DATE:		
-	4/7/97	
Control No:	111	

020592

Shoot1

MATERIALS MANIFEST

GENERATOR	Army Corps Of Engineers	
Site Address	Fort Baker	
Mailing	Sausalito,Ca	
		Contact
		Contact:
TRANSPORTER	R Dillard Trucking	
Address	P O Boy 57g	
	Dyon, Ca.	
Phone :()		Contact:
The contract of the	at the above named material was picked up at t	he generator site listed above.
Driver Name:	anes Bucus	Signature
Truck No. 10		
		Ship Date:
Time of Pick-Up: _		Time of Delivery:
Consultant/Owner Address	RCI 3233 Lance Dr.Unit 1	
	Stockton, Ca	
Phone :()		Contact:
I herby certify that the Form and Contamin proper condition for	the above named material is consistent with the	information presented in the Waste Characterization perly described, classified and packaged, and is in
Recycling Facility	BAY AREA SOIL	
	2717 GOODRICK AVENUE RICHM	OND, CA 94801
RECEIVED BY:	ala fall some	
DATE: Control No:	S 977.9	
	32 Sty . St	

020593

Chart

MATERIALS MANIFEST

GENERATOR	Army Corps Of Engineers	
Site Address	Fort Baker	
Mailing	Sausalito,Ca	
	Contact	
	Oomact	
TRANSPORTER	Dillard Trucking	
Address	P.O.Box 579	
	Byron,Ca.	
Phone :()	Contact:	
I hereby certify that the	ha about normal many to the	
Thoroby cortiny that the	he above named material was picked up at the gener	ator site listed above.
Driver Name:	Signature)
Truck No. X		
		9:
Time of Pick-Up:	Time of [)elivery:
0		
Consultant/Owner	RCI	
Address	3233 Lance Dr.Unit 1	
	Stockton,Ca.	
Phone :()		
Form and Contaminate	above named material is consistent with the informative Soil Description Form, and has been properly des	ion presented in the Waste Characterization
proper condition for tra	ted Soil Description Form, and has been properly des ansport according to applicable regulation.	cribed, classified and packaged, and is in
INATITE	Date:	
Recycling Facility	PAV ADEA COU	
-	BAY AREA SOIL	
	2717 GOODRICK AVENUE RICHMOND, C	CA 94801
RECEIVED BY:		
DATE:	4/7/97	
Control No:	9 3776	

020594

Shoot 1

MATERIALS MANIFEST

GENERATOR	Army Corps Of Engineers	
Site Address	Fort Baker	
Mailing	Sausalito,Ca	
		Contact:
TRANSPORTER	Dillard Trucking	
Address	P.O.Box 579 Byron,Ca,	
Phone :()		Contact:
I hereby certify that the	he above named material was picked	Lun of the generates startly a
Driver Name:	aviol RShepher	Signature Signature
Truck No.) ⁽⁴⁾	Ship Date:
Time of Pick-Up:		Time of Delivery:
Consultant/Owner		
ConsultanioOwner	RCI	
Address	3233 Lance Dr.Unit 1	
	Stockton,Ca.	
Phone :()		Contact:
I herby certify that the Form and Contaminat proper condition for tra	above named material is consistent ed Soil Description Form, and has be ansport according to applicable regul	with the information presented in the Waste Characterization
Name		Date:
Recycling Facility	BAY AREA SOIL 2717 GOODRICK AVENUE F	RICHMOND, CA 04004
-		TOT INICIAD, CA 94601
RECEIVED BY:	24/16	
DATE: Control No:	S-9779	

020595

Sheet1

MATERIALS MANIFEST

GENERATOR	Army Corps Or Engineers	
Site Address	Fort Baker	
Mailing	Sausalito,Ca	
		Contact:
TRANSPORTER	R Dillard Trucking	
Address	P.O.Box 579	
	Byron,Ca.	
Phone :()		Contact:
I hereby certify that	t the above named material was pic	cked up at the generator site listed above.
Driver Name: X	PHIL Rose	Signature Signature
	+ hal	Signature January
Truck No. X	<i>[7]</i>	Ship Date:
Time of Pick-Up: _		Time of Delivery:
(Time of Delivery:
0		
Consultant/Owner	RCI	
Address	3233 Lance Dr.Unit 1	
	Stockton,Ca.	
Phone :()		Contact:
I herby certify that the Form and Contamin proper condition for	he above named material is consist nated Soil Description Form, and ha transport according to applicable re	tent with the information presented in the Waste Characterization as been properly described, classified and packaged, and is in egulation.
Name		Date:
Recycling Facility	DAY AREA COM	
	BAY AREA SOIL	
	2717 GOODRICK AVENU	E RICHMOND, CA 94801
RECEIVED BY:	Calat La "	
DATE: Control No:	5,0770	
CONTROL NO.	\$ 0770	-

Sheet4

MATERIALS MANIFEST

GENERATOR	Army Corps Of Engineers	
Site Address	Fort Baker	
Mailing	Sausalito,Ca	
Phone :()		Contact:
		Contact:
TRANSPORTER	R Dillard Trucking	
Address	P.O.Box 579	
	Byron,Ca.	
Phone :()		Contact:
X	FOWADO A TO	up at the generator site listed above.
Driver Name:	70032	Ship Date:
Truck No.	9/	Ship Date:
Agent.		Ship bate
Time of Pick-Up: _		Time of Delivery:
Consultant/Owner Address	3233 Lance Dr.Unit 1	
Dh	Stockton,Ca.	
Phone :()		Contact:
	he above named material is consistent nated Soil Description Form, and has be transport according to applicable regul	with the information presented in the Waste Characterization
Name		Date:
Recycling Facility	BAY AREA SOIL	
	2717 GOODRICK AVENUE F	RICHMOND, CA 94801
RECEIVED BY:	Called &	
DATE:	1/7/92	
Control No:	S-9779	

020597

Sheett

MATERIALS MANIFEST

GENERATOR	Army Corps Of Engineers	
Site Address	Fort Baker	
Mailing		
		0
		Contact:
TRANSPORTER	Dillard Trucking	
Address		
	5),011,00.	
Phone :()		Contact:
I hereby certify that the	ahovo nomod material	
il and the	s above named material was picked	up at the generator site listed above.
Driver Name:	ence Block	Signature
Truck No. 1104		
11dax 140. 2 120 1		Ship Date:
Time of Pick-Up:		Time of Delivery:
		Time of Delivery:
Consultant/Owner	RCI	
Address	0000	
Address	3233 Lance Dr.Unit 1 Stockton,Ca.	
Phone :()		
		Contact:
I herby certify that the a Form and Contaminated proper condition for tran	bove named material is consistent w d Soil Description Form, and has been sport according to applicable regulation	vith the information presented in the Waste Characterization
	o - application rogala	uon.
Name		Date:
Recycling Facility		
	BAY AREA SOIL	
	2717 GOODRICK AVENUE RI	CHMOND, CA 94801
/		
RECEIVED BY:	Sala A.	
DATE: Control No:	4/7/97	
JOINIOI 110.	S 0/10	

020598

Sheet1

MATERIALS MANIFEST

GENERATOF	Army Corps Of Engineers	
Site Address	Fort Baker	
Mailing	Sausalito,Ca	
Phone :()		Contact:
TRANSPORTE		
Address	P.O.Box 579 Byron,Ca.	
Phone :()		Contact:
I hereby certify tha	it the above named material was mistrat	oonaaa.
Driver Name: Heway Hasting,		picked up at the generator site listed above. Signature Ship Date:
Time of Pick-Up: _		Time of Delivery:
Consultant/Owner		
Address	3233 Lance Dr. Unit 1	
	Stockton,Ca.	
Phone :()		Contact:
Form and Contamination for the proper condition for the proper conditio		ith the information presented in the Waste Characterization n properly described, classified and packaged, and is in ion.
		Date:
Recycling Facility	BAY AREA SOIL 2717 GOODRICK AVENUE RIC	CHMOND, CA 94801
RECEIVED BY: DATE: Control No:	9/17/97	, 51.01
COPYOFTUS SUR		

020599

Shoot1

MATERIALS MANIFEST

GENERATOR	Army Corps Of Engineers	
Site Address	Fort Baker	
Mailing	Sausalito,Ca	
Phone :()		Contact:
TRANSPORTER	Dillard Trucking	
Address		
	Byron,Ca,	
Phone :()		Contact:
I hereby certify that the	he above named meterial was mister	
Data No.	MOU Solvers of a	d up at the generator site listed above Signature
Driver Name:	100	Signature
Truck No.	/ × /	Ship Date:
Time of Pick-Lin:		
тте от тек-ор		Time of Delivery:
Consultant/Owner Address	RCI 3233 Lance Dr.Unit 1	
	Stockton,Ca.	
Phone :()		Contact:
I herby certify that the Form and Contaminat proper condition for tra	above named material is consistent	with the information presented in the Waste Characterization een properly described, classified and packaged, and is in lation.
Recycling Facility	BAY AREA SOIL	
-	2717 GOODRICK AVENUE	RICHMOND, CA 94801
RECEIVED BY:		
DATE:	11/7/57	
Control No:	\$ 0779	

020600

Sheet1

MATERIALS MANIFEST

GENERATOR	Army Corps Of Engineers	
Site Address	Fort Baker	
Mailing	Sausalito,Ca	
Phone :()		Contact:
TRANSPORTER	Dillard Trucking	
Address		
***************************************	Dyion, Ca.	
Phone :()		Contact:
	the above named material was nicke	ed up at the generator site listed above.
* i \		a up at the generator site listed above.
Driver Name:		Signature
Truck No. X)~\	Ship Date:
Time of Pick-Up:		Time of Delivery:
Consultant/Owner		
Address	3233 Lance Dr.Unit 1 Stockton,Ca.	
Phone :()	Stockton, Ca.	
The series of th	e above named material is consisten ated Soil Description Form, and has t transport according to applicable reg	It with the information presented in the Waste Characterization been properly described, classified and packaged, and is in ulation.
Name		Date:
Recycling Facility	BAY AREA SOIL	
	2717 GOODRICK AVENUE	RICHMOND, CA 94801
RECEIVED BY:	(Life)	
DATE:	9/7/97	
Control No:	<u> 9.0770</u>	

020601

Sheet1

MATERIALS MANIFEST

GENERATOR	Army Corps Of Engineers	
Site Address	Fort Baker	
Mailing	Sausalito,Ca	
Phone :()		Contact:
TRANSPORTER	Dillard Trucking	
Address		
-	Byron,Ca.	
Phone :()		Contact:
I hereby certify that	t the above named material was picke	ed up at the generator site listed above.
Driver Name:	EDWARD & ROUS	Signature Livar Plous
Truck No. 16	91	Signature //ow
Truck No.	/ /	Ship Date:
Time of Pick-Up: _		Time of Delivery:
Consultant/Owner	RCI	
Address	3233 Lance Dr.Unit 1	
	Stockton,Ca.	
Phone :()		
· orm and containing	he above named material is consistent nated Soil Description Form, and has lead transport according to applicable regi	nt with the information presented in the Waste Characterization
Name		Date:
Recycling Facility	7	
recycling racility	BAY AREA SOIL	
	2717 GOODRICK AVENUE	RICHMOND, CA 94801
RECEIVED BY:		
DATE:	7.00	
Control No:	9 9779	

020602

Sheet1

MATERIALS MANIFEST

GENERATOR	Army Corps Of Engineers	
Site Address	Fort Baker	
Mailing	Sausalito,Ca	
Phone :()		Contact:
TRANSPORTER	Dillard Trucking	
Address	P.O.Box 579	
	Byron,Ca.	
Phone :()		Contact:
		ked up at the generator site listed above.
λ ,	Ph. 1 (1)	ted up at the generator site listed above.
Driver Name:/	1) Mit () Com	Signature
Truck No.	#29/	Ship Date:
		Time of Delivery:
Consultant/Owner	RCI	
Address	3233 Lance Dr Unit 1	
	Stockton.Ca	
Phone :()		Contact:
I herby certify that the Form and Contamina proper condition for t	ne above named material is consiste ated Soil Description Form, and has transport according to applicable req	ent with the information presented in the Waste Characterization s been properly described, classified and packaged, and is in gulation.
Name		Date:
Recycling Facility	BAY AREA SOIL 2717 GOODRICK AVENUE	E RICHMOND, CA 94801
RECEIVED BY:		
DATE:	1/7/97	
Control No:	S-9779	

020603

Sheet1

MATERIALS MANIFEST

GENERATOR	Army Corps Of Engineers	
Site Address	Fort Baker	
Mailing	Sausalilo, Ca	
Phone :()		Contact:
TRANSPORTER	Dillard Trucking	
Address	P.O.Box 579 Byron.Ca:	
Phone //		
Prione :()		Contact:
I hereby certify that	the above named material was picked	up of the generation to the
Driver Name:	Nho Man	Signature
onvoi Hame.	10	Signature
Truck No	271	Ship Date:
Time of Pick-Up: _		Time of Delivery:
Consultant/Owner	RCI	
Address	3233 Lance Dr.Unit 1	
	Stockton, Ca.	
Phone :()		Contact:
Form and Contaminate	e above named motorial is asset at a	with the information presented in the Waste Characterization
Name		Date:
Recycling Facility	BAY AREA SOIL	
	2717 GOODRICK AVENUE R	ICHMOND, CA 94801
DECENTED DA		
RECEIVED BY:	1/3/5	
Control No:	S-9779	

020604

- NON-HAZARDOUS

Sheet1

MATERIALS MANIFEST

GENERATOR	Army Corps Of Engineers	
Site Address	Fort Baker	
Mailing	Soussailto, Ca	
Phone :()		Contact:
TRANSPORTE	Dillard Trucking	
Address	P.O.Box 579 Byron,Ca.	
Phone :()		Contact:
I hereby certify tha	t the above named material was pic	ked up at the generator site listed above
Driver Name:	Han bei	Signature
Truck No.	19)	Ship Date:
Time of Pick-Up: _		Time of Delivery:
Consultant/Owner	RCI	
Address	3233 Lance Dr.Unit 1 Stockton,Ca.	
Phone :()		Contact:
I herby certify that the Form and Contamination	he above named material is consist	ent with the information presented in the Waste Characterization
Name		Date:
Recycling Facility	BAY AREA SOIL 2717 GOODRICK AVENU	E RICHMOND, CA 94801
RECEIVED BY: DATE: Control No:	S-9779	

020605

Sheet1

MATERIALS MANIFEST

GENERATOR	Army Corps Of Engineers	
Site Address	Fort Baker	
Mailing	Sausaliko,Ca	
Phone :()		Contact:
TRANSPORTER	Dillard Trucking	
Address		
	Byron,Ca.	
Phone :()		Contact:
I hereby certify that	the above named material was picked	A Alexander
	Thank I To land I like the	up at the generator site listed above.
Driver Name: A	dimos Etalo	Signature
Truck No.		Ship Date:
•		
Time of Pick-Up: _		Time of Delivery:
Consultant/Owner Address		
Phone ;()		Contact
	ne above named material is consistent ated Soil Description Form, and has be transport according to applicable regul	with the information presented in the Waste Characterization een properly described, classified and packaged, and is in ation.
Name		Date:
Recycling Facility	BAY AREA SOIL	
	2717 GOODRICK AVENUE F	RICHMOND, CA 94801
RECEIVED BY: _/.		
DATE:	4/7/02	
Control No:	\$ 9770	

MATERIALS MANIFEST

Mailing	Fort Baker	
Phone :()	Sausalito,Ca	0
		Contact:
TRANSPORTE		
Address	Dillard Trucking	
	P.O. Boy 570	
Phone :()	Byron,Ca.	Contact:
hereby certify tha	at the above named material was	s picked up at the generator site listed above.
river Name: \sqrt{N}		
ruck No	091	Signature
r		Ship Date:
me of Pick-Up: _		Time of Delivery:
onsultant/Owner	7	
	- RCI	
onsultant/Owner	RCI	
ldress	- RCI	
ddress	RCI 3233 Lance Dr.Unit 1 Stockton,Ca.	Contact:
one :()erby certify that to	3233 Lance Dr.Unit 1 Stockton,Ca. he above named material is contacted Soil Description Form, and	Contact: sistent with the information presented in the Waste Characterizate the second contact.
ddress none :() erby certify that t rm and Contamir oper condition for	3233 Lance Dr.Unit 1 Stockton,Ca. he above named material is connated Soil Description Form, and transport according to applicable	Contact:
ddress none :() erby certify that t rm and Contamir oper condition for	3233 Lance Dr.Unit 1 Stockton,Ca. he above named material is connated Soil Description Form, and transport according to applicable	Contact: Contact: Insistent with the information presented in the Waste Characterizate in the Characte
doress none :() erby certify that to rm and Contamir oper condition for me	3233 Lance Dr.Unit 1 Stockton,Ca. he above named material is connated Soil Description Form, and transport according to applicable	Contact:
one :()erby certify that to rm and Contamir per condition for me	3233 Lance Dr.Unit 1 Stockton,Ca. he above named material is connated Soil Description Form, and transport according to applicable. BAY AREA SOIL	Contact:Contact:Contact:
one :()erby certify that to rm and Contamir per condition for me	3233 Lance Dr.Unit 1 Stockton,Ca. he above named material is connated Soil Description Form, and transport according to applicable. BAY AREA SOIL	Contact:Contact:Contact:
one :()erby certify that the rm and Contamir uper condition for mecycling Facility	3233 Lance Dr.Unit 1 Stockton,Ca. he above named material is connated Soil Description Form, and transport according to applicable. BAY AREA SOIL	Contact:
one :()erby certify that to rm and Contaminated contaminated condition for	3233 Lance Dr.Unit 1 Stockton,Ca. he above named material is connated Soil Description Form, and transport according to applicable. BAY AREA SOIL	Contact:Contact:Contact:

WHITE-FACILITY COPY YELLOW-TRANSPORTER COPY PINK-GENERATOR COPY

A DAILY BASIS. ANY UNSCHEDULED LOADS MAY BE REFUSED AT THE GATE.

020609

MATERIALS MANIFEST

GENERATOR		
Site Address	Army Corps Of Engineers	
Mailing_	Fort Baker	
Phone :()_	Sausalito,Ca	
		Contact:
TRANSPORTE	R	
Address	Dillard Trucking	
	P.O.Box 579	
Phone :()	Byron,Ca.	Contact:
I hereby certify that	t the above named material was pick	(ed up at the generator site listed above
(COL	Signature
		Ship Date:
Time of Pick-Up: _		Time of Delivery:
Consultant/Owner Address	RCI	
	3233 Lance Dr.Unit 1	
Phone :()	Stockton,Ca.	Contact:
proper condition for	ne above named material is consiste lated Soil Description Form, and has transport according to applicable req	nt with the information presented in the Waste Characterization been properly described, classified and packaged, and is in gulation.
		Date:
Recycling Facility	BAY AREA SOIL 2717 GOODRICK AVENUE	RICHMOND, CA 94801
RECEIVED BY:		
DATE:	- Can from	
Control No:	4/7/97	

020610

Sheet1

MATERIALS MANIFEST

GENERATOR	Army Corps Of Engineers	
Site Address	Fort Baker	
Mailing		
Phone :()		Contact:
TRANSPORTE	D. 11 . 1	
	P.O.Box 579	
	Dyron ea.	
Phone :()		Contact:
I hereby certify tha	t the above named material was pi	cked up at the generator site listed above.
Driver Name:	led De	Signature
Truck No.	291	Ship Date:
Time of Pick-Up: _		Time of Delivery:
Consultant/Owner	RCI	
Address	3233 Lance Dr Unit 1 Stockton, Co.	
		Contact:
I herby certify that t Form and Contami	the above named material is consis	stent with the information presented in the Waste Characterization
Name		Date:
Recycling Facility RECEIVED BY: DATE:	Jan J	JE RICHMOND, CA 94801
Control No:	5-9779	

020611

Sheet1

MATERIALS MANIFEST

GENERATOR	Army Corps Of Engineers	
Site Address	Fort Baker Sausalito,Co	
9		
Phone :()		Contact:
TRANSPORTE	R Dillard Trucking	
Adduses	P.O.Box 579	
Address	Byron,Ca.	
Phone :()		
I hereby certify that	at the above named material was picked	d up at the generator site listed above.
Driver Name:	was Edwards	Signature
Truck No.		
		Ship Date:
Time of Pick-Up:		Time of Delivery:
Consultant/Owner	RCI	
	3233 Lamon Dail 334	
Address		
Phone :()		
I herby certify that the	the above named material is consistent	with the information presented in the Waste Characterization
ours of the control of the co	nated Soil Description Form, and has be r transport according to applicable regul	PPD Droparly decoribed algoritical and a set
Name		Date:
Recycling Facility	_BAY AREA SOIL	
	2717 GOODRICK AVENUE F	RICHMOND CA 94801
RECEIVED BY: DATE:	Daver	
	V 4-47-97	

Sheert

MATERIALS MANIFEST

Site Address	Fort Baker Sausalits,Ca	
Mailing	Sausaliio,Ca	
		Contact
		Contact:
TDANOBOTTO	Dillard Tourstain	
TRANSPORTER	Dillard Trucking	
Address	P.O.Box 579	
	Cyton, Oa.	
Phone :()		Contact:
I hereby certify that the	ha ahaya mmad mada i d	oontaot.
In the state of th	ne above named material was pick	ed up at the generator site listed above.
Driver Name: Name:	Samos Bacars	Signature
Truck No. X		
		Ship Date:
Time of Pick-Up:		Time of Delivery:
	D 01	
Consultant/Owner	RCI	
Consultant/Owner		
Address	3233 Lance Dr.Unit 1 Stockton,Ca.	
Address	3233 Lance Dr.Unit 1 Stockton,Ca.	
AddressPhone :()	3233 Lance Dr.Unit 1 Stockton, Ca.	Contact:
Address Phone :() I herby certify that the Form and Contaminat	3233 Lance Dr.Unit 1 Stockton, Ca. above named material is consisted ed Soil Description Form, and here	Contact: Int with the information presented in the Waste Characterization
Address Phone :() I herby certify that the Form and Contaminat	3233 Lance Dr.Unit 1 Stockton, Ca.	Contact: Int with the information presented in the Waste Characterization
Phone :() I herby certify that the Form and Contaminat proper condition for tra	3233 Lance Dr.Unit 1 Stockton,Ca. above named material is consisted ed Soil Description Form, and has ansport according to applicable reg	Contact:Contact:
Phone :() I herby certify that the Form and Contaminat proper condition for tra	3233 Lance Dr.Unit 1 Stockton,Ca. above named material is consisted ed Soil Description Form, and has ansport according to applicable reg	Contact: Int with the information presented in the Waste Characterization
Address Phone :() I herby certify that the Form and Contaminat proper condition for tra	3233 Lance Dr.Unit 1 Stockton,Ca. above named material is consisted ed Soil Description Form, and has ansport according to applicable reg	Contact:Contact:
Phone :() I herby certify that the Form and Contaminat proper condition for tra	3233 Lance Dr.Unit 1 Stockton,Ca. above named material is consisted ed Soil Description Form, and has ansport according to applicable reg	Contact: nt with the information presented in the Waste Characterization been properly described, classified and packaged, and is in ulation. Date:
Address Phone :() I herby certify that the Form and Contaminat proper condition for tra	3233 Lance Dr.Unit 1 Stockton,Ca. above named material is consisted ed Soil Description Form, and has ansport according to applicable reg	Contact: nt with the information presented in the Waste Characterization been properly described, classified and packaged, and is in ulation. Date:
Address Phone :() I herby certify that the Form and Contaminat proper condition for transposer condition for transposer. Name Recycling Facility	3233 Lance Dr.Unit 1 Stockton,Ca. above named material is consisted ed Soil Description Form, and has ansport according to applicable reg	Contact: nt with the information presented in the Waste Characterization been properly described, classified and packaged, and is in ulation. Date:
Address Phone :() I herby certify that the Form and Contaminat proper condition for tra	3233 Lance Dr.Unit 1 Stockton,Ca. above named material is consisted ed Soil Description Form, and has ansport according to applicable reg	Contact: nt with the information presented in the Waste Characterization been properly described, classified and packaged, and is in ulation. Date:

020613

Sheet1

MATERIALS MANIFEST

GENERATOR	Army Corps Of Engineers	
Site Address	Fort Baker	
Mailing	Sausalito,Ca	
		Contact:
TRANSPORTER	Dillard Trucking	
Address	P.O.Box 579	
	Byron,Ca.	
Phone :()		Contact:
		ed up at the generator site listed above.
Data and the second	1 1 - A Company of the Company of th	ed up at the generator site listed above.
Driver Name:	PALLY HOLING	Signature
Truck No.	991	Ship Date:
Time of Pick-Up: _		Time of Delivery:
	1 00	
Consultant/Owner	RCI	
Address		
	Stockton,Ca.	
Phone :()		Contact:
I herby certify that the Form and Contamin	ne above named material is consiste	nt with the information presented in the Waste Characterization
Name		Date:
Recycling Facility	BAY AREA SOIL	
	2717 GOODRICK AVENUE	RICHMOND, CA 94801
DE0EN (E5		
RECEIVED BY: DATE:	Child Has	
Control No:	S-9779	

020614

Sheet1

MATERIAL'S MANIFEST

GENERATOR	Army Corps Of Engineers	
Site Address	Fort Baker	
Mailing	Sausalilo,Ca	
Phone :()		Contact:
		Contact:
TRANSPORTER	Dillard Trucking	
Address	Byron,Ca.	
Phone :()		Contact:
I hereby certify that	the above named material was nicke	ad up at the generator site to the
Driver Name	Xian SI and	d up at the generator site listed above.
Driver Name: /	TWO CAUDONAU	Signature
Truck No. A	8-	Ship Date:
Time of Pick-Up:		Time of Delivery:
Consultant/Owner Address	3233 Lance Dr. Unit 1	
Die	Stockton,Ca.	
Phone :()		Contact:
proper condition for to	ransport according to applicable regu	t with the information presented in the Waste Characterization been properly described, classified and packaged, and is in Ilation.
Name		Date:
Recycling Facility	BAY AREA SOIL 2717 GOODRICK AVENUE I	RICHMOND, CA 94801
RECEIVED BY:	all for	
DATE:	4/7/97	
Control No:	S.9774	

Sheet1

MATERIALS MANIFEST

GENERATOR	Army Corps Of Engineers	
Site Address	Fort Baker	
Mailing	Sausalito,Ca	
Phone :()		Contact:
TRANSPORTER	Dillard Trucking	
Address	Byron,Ca.	
Phone :()		Contact:
I hereby certify that	t the above named material was picked	d up at the generator site listed above.
Driver Name:	COWARD A Rouse	Signato There & Moure
Truck No. X 69	9/	Ship Date:
		Time of Delivery:
Consultant/Owner		
Address	3233 Lance Dr.Unit 1	
	Stockton,Ca.	
Phone :()		Contact:
	he above named material is consistent nated Soil Description Form, and has b transport according to applicable regu	with the information presented in the Waste Characterization
Name		Date:
Recycling Facility	1	•
recording racinty	BAY AREA SOIL	
	2717 GOODRICK AVENUE I	RICHMOND, CA 94801
RECEIVED BY:	faller & .	
DATE:	4/7/97	
Control No:	S.9779	

ACOPY OF THIS SHEET MUST ACCOMPANY EVERY LOAD, AND MUST BE SUBMITTED AT THE GATE FOR ENTRY.
ALL LOADS MUST BE SCHEDULED AT LEAST 24 HOURS IN ADVANCE. DELIVERIES MUST BE SCHEDULED ON
A DAILY BASIS. ANY UNSCHEDULED LOADS MAY BE REFUSED AT THE GATE.

020616

Sheet1

MATERIALS MANIFEST

GENERATOF	Army Corps Of Engineers	
Site Address	Fort Baker	
Mailing	Sausaiito,Ca	
		Contact:
TRANSPORTE	R Dillard Trucking	
Address	P.O.Box 579	
	Byron,Ca.	
Phone :()		Contact:
I hereby certify that	at the above named material was pick	ked up at the generator site listed above.
Driver Name:		
	ON I	Signature
Truck No.		Ship Date:
Time of Pick-Up:		Time of Delivery:
Consultant/Owner	RCI	
Address	3233 Lance Dr.Unit 1	
	Stockton,Ca.	
Phone :()		Contact:
I herby certify that t Form and Contami proper condition for	the above named material is consiste nated Soil Description Form, and has r transport according to applicable re	ent with the information presented in the Waste Characterization been properly described, classified and packaged, and is in gulation.
INATITE		Date:
Recycling Facility	BAY AREA SOIL	
	2717 GOODRICK AVENUE	RICHMOND, CA 94801
RECEIVED BY:		
DATE:	4/7/67	
Control No:	S-9779	

ACOPY OF THIS SHEET MUST ACCOMPANY EVERY LOAD, AND MUST BE SUBMITTED AT THE GATE FOR ENTRY.
ALL LOADS MUST BE SCHEDULED AT LEAST 24 HOURS IN ADVANCE. DELIVERIES MUST BE SCHEDULED ON
A DAILY BASIS. ANY UNSCHEDULED LOADS MAY BE REFUSED AT THE GATE.

020617

Sheet1

MATERIALS MANIFEST

GENERATOR	Anny Corps Of Engineers	
Site Address	Fort Baker	
Mailing	Sausalito,Ca	
		Contact:
		Contact:
TRANSPORTE	R Dillard Trucking	
	D 0 D 570	
Address	Byron, Ca.	
Phone :()		Contact:
	at the above named material was picked	
	La Marie Material was picked	up at the generator site listed above.
Driver Name: N	- PENEY HESING	Signature
Truck No.	991	Signature
,		
Time of Pick-Up:		Time of Delivery:
Consultant/Owner	r RCI	
Address	3233 Lance Dr.Unit 1	
	Stockton, Ca.	
Phone :()		Contact:
Form and Contami	the above named material is consistent to inated Soil Description Form, and has be	with the information presented in the Waste Characterization een properly described, classified and packaged, and is in
proper condition fo	or transport according to applicable regula	ation.
Name		P. C.
		Date:
Recycling Facility	BAY AREA SOIL	
	2717 GOODRICK AVENUE F	RICHMOND, CA 94801
		.,
RECEIVED BY: DATE:	Color State	
Control No:	S-9779	

ACOPY OF THIS SHEET MUST ACCOMPANY EVERY LOAD, AND MUST BE SUBMITTED AT THE GATE FOR ENTRY. ALL LOADS MUST BE SCHEDULED AT LEAST 24 HOURS IN ADVANCE. DELIVERIES MUST BE SCHEDULED ON A DAILY BASIS. ANY UNSCHEDULED LOADS MAY BE REFUSED AT THE GATE.

020618

Sheet1

MATERIALS MANIFEST

GENERATOR	Army Corps Of Engineers	
Site Address	Fort Baker	
Mailing	Sausanto, Ga	
		Contact:
TRANSPORTER	Dillard Trucking	
Address	P.O.Box 579 Byron,Ca.	
Phone :()		Contact:
I hereby certify that	the above named material was picked	un of the general and the second
Driver Name:	MICID-	Signature
Truck No.	29/	Ship Date:
Time of Pick-Up:		Time of Delivery:
Consultant/Owner	RCI	
Address	3233 Lance Dr.Unit 1 Stockton,Ca.	
I herby certify that the Form and Contamina	e above named material is consistent	with the information presented in the Waste Characterization
		Date:
Recycling Facility	BAY AREA SOIL	
	2717 GOODRICK AVENUE R	RICHMOND, CA 94801
DATE:	9.11.19-19-	
Control No:	S-9779	

ACOPY OF THIS SHEET MUST ACCOMPANY EVERY LOAD, AND MUST BE SUBMITTED AT THE GATE FOR ENTRY.
ALL LOADS MUST BE SCHEDULED AT LEAST 24 HOURS IN ADVANCE. DELIVERIES MUST BE SCHEDULED ON
A DAILY BASIS. ANY UNSCHEDULED LOADS MAY BE REFUSED AT THE GATE.

020619

Sheet1

MATERIALS MANIFEST

GENERATOR	Anny Corps Of Engineers	
Site Address	Fort Baker	
Mailing	Sausalito,Ca	
		Contact:
		Contact:
TRANSPORTE	B Dillard Trucking	
MANOPORTE		
Address	P.O.Box 579	
	Byron,Ca.	
Phone :()		_Contact:
		ked up at the generator site listed above.
	Rouse A- R	ked up at the generator site listed above.
Driver Name: 102	prompt rease	Signature Musace A Form
Truck No.	/-G/	Ship Date:
1		
Time of Pick-Up:		Time of Delivery:
Consultant/Owner		
Address		
-	Stockton,Ca.	
Phone :()		
I herby certify that the Form and Contamination for the proper condition for the proper conditio	the above named material is consistent nated Soil Description Form, and has r transport according to applicable re	ent with the information presented in the Waste Characterization seen properly described, classified and packaged, and is in gulation.
		Date:
,		
Recycling Facility	BAY AREA SOIL	
	2717 GOODRICK AVENUE	E RICHMOND, CA 04804
		E THOTHWOND, CA 94801
RECEIVED BY:	- Malant	
DATE:	4/7/5-	
Control No:	S-9779 / /	

ACOPY OF THIS SHEET MUST ACCOMPANY EVERY LOAD, AND MUST BE SUBMITTED AT THE GATE FOR ENTRY. ALL LOADS MUST BE SCHEDULED AT LEAST 24 HOURS IN ADVANCE. DELIVERIES MUST BE SCHEDULED ON A DAILY BASIS. ANY UNSCHEDULED LOADS MAY BE REFUSED AT THE GATE.

020620

Sheet1

MATERIALS MANIFEST

GENERATOR	Army Corps Of Engineers	
Site Address	Fort Baker	
Mailing	Sausalito,Ca	
		Contact
		Contact:
TRANSPORTER	Dillard Trucking	
Address	P.O.Box 579	
, tadi 000	Bylon, Ca.	
Phone :()		Contact:
I hereby certify that the	ne above named material was pich	(ed In at the generator site listed shows
Driver Name:	DEPUI	Signature
Truck No.	39	
Truck No.		Ship Date:
Time of Pick-Up:		Time of Delivery:
Consultant/Owner	RCI	
Address	3233 Lance Dr.Unit 1	
	Diockion, Ca.	
Phone :()		Contact:
I herby certify that the Form and Contaminate	above named material is consiste	ent with the information presented in the Waste Characterization
Name		Date:
Recycling Facility	BAY AREA SOIL	
	2717 GOODRICK AVENUE	BICHMOND CA 04904
- تر		- THOTHMOND, CA 94001
RECEIVED BY:	lotte the	
DATE: Control No:	5.9779 4/7/97	
CONTROL NO:		

ACOPY OF THIS SHEET MUST ACCOMPANY EVERY LOAD, AND MUST BE SUBMITTED AT THE GATE FOR ENTRY.
ALL LOADS MUST BE SCHEDULED AT LEAST 24 HOURS IN ADVANCE. DELIVERIES MUST BE SCHEDULED ON
A DAILY BASIS. ANY UNSCHEDULED LOADS MAY BE REFUSED AT THE GATE.

APPENDIX C Certified Analytical Reports



630 Maple Ave. Torrance, CA 90503

Telephone: (310) 618-8889 Fax: (310) 618-0818

Date: 12-13-1996 EMAX Batch No.: 96K145

Attn: Mr. Mike Bailey

RCI 3233 Lance Drive, Unit #1 Stockton, CA 95205

Subject:

Laboratory Report Project: Fort Baker / Project 96-12

Enclosed is the Laboratory report for samples received on 11/29/96. The data reported include :

Sample ID	Control #	Col Date	Matrix	Analysis
T1-N	K145-01	11/27/96	Soil	EPA 5030/M8015 EPA M8015 EPA 8020 Lead
T1-S	K145-02	11/27/96	Soil	EPA 5030/M8015 EPA M8015 EPA 8020 Lead
PL-1	K145-03	11/27/96	Soil	EPA 5030/M8015 EPA M8015 EPA 8020 Lead
PL-2	K145-04	11/27/96	Soil	EPA 5030/M8015 EPA M8015 EPA 8020 Lead
PL-3	K145-05	11/27/96	Soil	EPA 5030/M8015 EPA M8015 EPA 8020

Sample ID	Control #	Col Date	Matrix	Analysis
PL-4	K145-06	11/27/96	Soil	Lead EPA 5030/M8015 EPA M8015 EPA 8020
PL-5	K145-07	11/27/96	Soil	Lead EPA 5030/M8015 EPA M8015 EPA 8020
PL-6	K145-08	11/27/96	Soil	Lead EPA 5030/M8015 EPA M8015 EPA 8020
PL-7	K145-09	11/27/96	Soil	Lead EPA 5030/M8015 EPA M8015 EPA 8020
PL-8	K145-10	11/27/96	Soil	Lead EPA 5030/M8015 EPA M8015 EPA 8020
PL-9	K145-11	11/27/96	Soil	Lead EPA 5030/M8015 EPA M8015 EPA 8020
PL-10	K145-12	11/27/96	Soil	Lead EPA 5030/M8015 EPA M8015 EPA 8020
QC-1	K145-13	11/27/96	Soil	Lead EPA 5030/M8015 EPA M8015 EPA 8020
SP-1	K145-14	11/27/96	Soil	Lead EPA 5030/M8015 EPA M8015 EPA 8020
SP-2	K145-15	11/27/96	Soil	Lead EPA 5030/M8015 EPA M8015 EPA 8020 Lead

Sample ID	Control #	Col Date	Matrix	Analysis
SP-3	K145-16	11/27/96	Soil	EPA 5030/M8015 EPA M8015 EPA 8020 Lead
SP-4	K145-17	11/27/96	Soil	EPA 5030/M8015 EPA M8015 EPA 8020 Lead
SP-5	K145-18	11/27/96	Soil	EPA 5030/M8015 EPA M8015 EPA 8020 Lead
SP-6	K145-19	11/27/96	Soil	EPA 5030/M8015 EPA M8015 EPA 8020 Lead
SP-7	K145-20	11/27/96	Soil	EPA 5030/M8015 EPA M8015 EPA 8020 Lead
QC-2	K145-21	11/27/96	Soil	EPA 5030/M8015 EPA M8015 EPA 8020 Lead

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

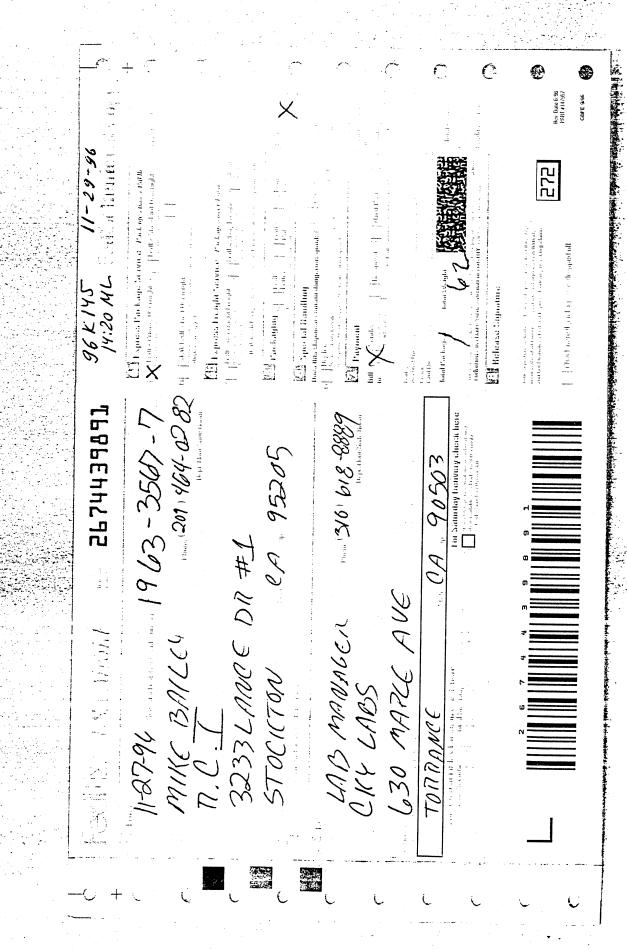
Sincerely yours,

Kam Y. Pang, Ph.D. Laboratory Director

P.S. - All analyses requested for the above referenced project have been completed. Therefore, unless instructed, the remaining portions of the samples will be disposed after fifteen (15) days from the date of this report.

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CONTAINER SAMPLE TRANSPORTATION TO EMAX LABORATORY: PICKED-UP BY EMAX COURIER SAMPLE TRANSPORTATION TO EMAX LABORATORY: PICKED-UP BY EMAX COURIER SHIPPED/AIRBILL NO: COOLER BOX COOLER BOX INSIDE TEMPERATURE (4°C ± 2 °C) COOLER BOX SAMPLE DOCUMENTATION/CHAIN-OF-CUSTODY(COC) SAMPLE LOG-IN: SAMPLE CUSTODY SEAL CONTAINER TYPE/MATERIAL SAMPLE CUSTODY SEAL SAMPLE CUSTODY SEAL CONTAINER TYPE/MATERIAL SAMPLE AMOUNT ENOUGH ENOUGH	4439891 ggular TYPE TYPE CRITERIA CRITERIA	BY LINIAGI SUFFICIENCY SEALED SEALED	ON(DATE) DAMAGED CUSTODY SEAL INTACT NAME: DATE: TIME:	AT(TIME) SEALED DAMAGED **C C C C C C C C C C C C C C C C C C	DATE TIME RECIPIENT FROM(SITE/CO.) LOCATION LOCATION	11-29-96 14:20 N.Lyu.cly COMMENIS NO CONTAINER NUMBER
SAMPLE TOG-IN: SAMPLE CUSTODY SEAL SAMPLE DOCUMENTATION/CHAIN-OF-CUSTODY(COC) SAMPLE CUSTODY SEAL SAMPLE CUSTODY SEAL SAMPLE CUSTODY SEAL SAMPLE CUSTODY SEAL SAMPLE AMOUNT SAMPLE CUSTODY SEAL SAMPLE AMOUNT SAMPLE AM	17PE 2 TYPE 24 W.C. SHITERIA	SUFFICIENCY SUFFICIENCY SEALED SEALED	ON(DATE) DAMAGED CUSTODY SEAL INTACT NAME: DATE: TIME:	TA D D HAN		M. Lyn Ly COMMENTS COMMENTS NO CONTAINER NUMBER
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SAMPLE DOCUMENTATION/CHAIN-OF-CUSTODY (COC) SAMPLE BATCH PACKAGING/SEALING UPON RECEIPT: CONTAMINER: BOX OTHER: OTHER: SAMPLE DOCUMENTATION/CHAIN-OF-CUSTODY (COC) SAMPLE CUSTODY SEAL SAMPLE CUSTODY SEAL SAMPLE CUSTODY SEAL SAMPLE AMOUNT SHIPPED/CE X 26 7 7 7 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	9891 TYPE AL ANL	SUFFICIENCY SUFFICIENCY SEALED SEALED	DAMAGED CUSTODY SEAL INTACT NAME: DATE: TIME:	HWN HWN		NO CONTAINER NUMBER
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CHOLDING TIME SUFFICENT	ICENT					
SAMPLE PRESERVATION (For appropriate preservative see GP-000) (Announties)	NaOH preserved samples pH > 12 HNO1/H3SQ, preserved samples pH < 2					
HEADSPACE/BUBBLES	NONE					
MATION	CIENT					
CHAIN-OF-CUSTODY INFORMATION	CIENT	1				
SAMPLE ID //	7	TIME	CICMATUDE	ANIA! VOTO	, Line Control of the	
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SAMPLE NUMBER CLIENT ID		DISCREPANCY			ACTION	
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LABORATORY REPORT FOR

RCI

FORT BAKER / PROJECT 96-12

EPA 5030A/M8015 TOTAL PETROLEUM HYDROCARBONS BY PURGE & TRAP

SDG#: 96K145

DECEMBER 09, 1996

CASE NARRATIVE

CLIENT:

RCI

PROJECT:

FORT BAKER / PROJECT 96-12

SDG:

96K145

EPA 5030A/M8015 TOTAL PETROLEUM HYDROCARBONS BY PURGE & TRAP

Twenty-one (21) soil samples were received on 11/29/96 to be analyzed for gasoline by 5030A/M8015 accordance with SW846 (1986) and Leaking Underground Fuel Tank (LUFT) Field Manual, SWRCB, Dept. of Health Service, CA (1988).

1. Holding Time

Analytical holding time was met.

2. Surrogate Recovery

All surrogate recoveries were within QC limits.

3. Matrix Spike/Matrix Spike Duplicate

All recoveries and RPDs were within QC limits.

4. Lab Control Sample/Lab Control Sample Duplicate

All recoveries and RPDs were within QC limits.

5. Method Blank

Method blanks were free of contamination.

6. Calibration

> Initial calibration was at 5-point, continuing calibrations were carried out at 10samples interval. All QC requirements were met.

7. Sample Analysis

001

Sample analyses met all QC requirements.

EPA 5030A/M8015 TOTAL PETROLEUM HYDROCARBONS BY PURGE & TRAP

CLIENT: RCI
PROJECT: Fort Baker / Project 96-12
CH NO: 96K145
CITRIX: SOIL
DATE COLLECTED: 11/27/96
DATE RECEIVED: 11/29/96
DATE EXTRACTED: 12/03/96
DATE ANALYZED: 12/03/96

SAMPLE ID	CONTROL NO	RESULT (mg/kg)	% RECOVERY DL MOIST RL SURR FACTOR (%) (mg/kg	J)
T1-N T1-S PL-1 PL-2 PL-3 PL-4 PL-5 PL-6 PL-7 PL-8 PL-10 SP-1 SP-1 SP-2 SP-3 SP-2 SP-4 SP-7 QC-1 SP-7 QC-2 MBLK2 MBLK2	K145-01* K145-02* K145-03* K145-04* K145-05 K145-06 K145-07 K145-09 K145-10 K145-11 K145-12 K145-12 K145-15 K145-15 K145-16 K145-17 K145-18 K145-19 K145-21 VAL0214B VAL0314B	16000 13000 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	70	

65-135

LIMIT:

SURR: Bromofluorobenzene

RL : Report Limit

DATE ANALYZED: 12/04/96 for K145-17, -18, -19, -20 & -21.

* Not gasoline pattern, the sample was quantitated against gasoline calibration.

002

EMAX QUALITY CONTROL DATA MS/MSD ANALYSIS

CLIENT:

RCI

PROJECT:

Fort Baker / Project 96-12

™HOD:

EPA 5030A/M8015

XIX:

SOIL

% MOISTURE: 25.3

BATCH NO.: SAMPLE ID: 96K145

CONTROL NO.:

PL-3

K145-05

DATE RECEIVED: DATE EXTRACTED: 12/03/96

11/29/96

DATE ANALYZED: 12/03/96

ACCESSION:

96K145

PARAMETER

SMPL RSLT SPIKE AMT MS RSLT (mg/kg) ------

MS % REC

SPIKE AMT MSD RSLT (mg/kg)

(mg/kg)

MSD % REC

RPD % QC LIMIT RPD LIMIT %

%

Gasoline

(mg/kg) (mg/kg) ND 6.69

7.64

114

6.69

SPIKE AMT

6.51

97

16

65-135

SPIKE AMT

MS RSLT

MS (mg/kg) (mg/kg) % REC (mg/kg)

MSD RSLT (mg/kg) MSD

QC LIMIT

SURROGATE PARAMETER -----Bromofluorobenzene

.334

.339

101

.335

.304

91

65 - 135

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EMAX QUALITY CONTROL DATA MS/MSD ANALYSIS

CLIENT:

RCI

PROJECT:

Fort Baker / Project 96-12

™ HOD:

EPA 5030A/M8015

:XIS

SOIL

11.7

BATCH NO.: 96K14 SAMPLE ID: SP-6 BATCH NO.:

96K145

CONTROL NO.: K145-19

DATE RECEIVED: 11/29/96

DATE EXTRACTED: 12/03/96 DATE ANALYZED: 12/04/96

ACCESSION:

96K145

PARAMETER

SMPL RSLT SPIKE AMT MS RSLT

(mg/kg)

MS SPIKE AMT MSD RSLT MSD RPD QC LIMIT % REC (mg/kg) (mg/kg) % REC % %

RPD QC LIMIT RPD LIMIT % %

Gasoline

(mg/kg) (mg/kg) % REC (mg/kg) ND

5.66 4.97 88 5.66

5.62 99 12 65 - 135

SURROGATE PARAMETER

.247

87

SPIKE AMT MS RSLT MS SPIKE AMT MSD RSLT MSD QC LIMIT (mg/kg) (mg/kg) % REC %

Bromofluorobenzene

.283

.283

.250

88

65 - 135

EMAX QUALITY CONTROL DATA LCS/LCD ANALYSIS

CLIENT:

RCI

PROJECT:

Fort Baker / Project 96-12

™HOD:

EPA 5030A/M8015

RIX:

SOIL

% MOISTURE:

NA

BATCH NO.:

96K145

SAMPLE ID: CONTROL NO.:

VAL0214L/C

LCS1S/LCS1SD

DATE RECEIVED: NA

DATE EXTRACTED: 12/03/96

DATE ANALYZED: 12/03/96

ACCESSION:

96K145

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD %	QC LIMIT	RPD LIMIT %
Gasoline	ND	5.00	4.63	93	5.00	4.85	97	5	70-125	40
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SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT %
Bromofluorobenzene	.250	.277	111	.25	.283	113	65-135

EMAX QUALITY CONTROL DATA LCS/LCD ANALYSIS

CLIENT:

RCI

PROJECT:

Fort Baker / Project 96-12

`DD:

EPA 5030A/M8015

:X1

SOIL

% MOISTURE:

NA ------

BATCH NO.:

96K145

SAMPLE ID: CONTROL NO.:

LCS2S/LCS2SD

VAL0314L/C

DATE RECEIVED: NA

DATE EXTRACTED: 12/03/96

DATE ANALYZED: 12/03/96

ACCESSION:

96K145

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD %	QC LIMIT	RPD LIMIT
Gasoline	ND	5.00	4.19	84	5.00	4.23	85	1	70-125	40

SPIKE AMT BS RSLT BS SPIKE AMT BSD RSLT BSD QC LIMIT (mg/kg) (mg/kg) % REC (mg/kg) (mg/kg) % REC % SPIKE AMT SURROGATE PARAMETER Bromofluorobenzene .250 .264 106 .250 .255 102 65 - 135

000

SEQUENCE FILE: F:\AL03.SEQ

SEQUENCE FILE: F:\A	ALO3.SEQ					
SAMPLE NAME	METHOD NAME	DATA FILE	AMOUNT INJECTED	INT.STD. AMOUNT	DILUTION FACTOR	SAMPLE WEIGHT
1 VAL0214IB	ADUALJ	ALO3-	1.0000	1.0000	1.0000	1.0000
2 DCC1 GAS 1 PP	1 ADUALJ	AL03-	1.0000		1.0000	1.0000
3 VAL0214B	ADUALJ	AL03-	1.0000		1.0000	1.0000
4 VAL0214L	ADUALJ	AL03-	1.0000		1.0000	1.0000
5 VAL0214C	ADUALJ	AL03-	1.0000		1.0000	1.0000
6 96L004-03 1.0g	m S ADUALJ	AL03-	1.0000		1.0000	1.0000
7 96L004-02 1.0g	m S ADUALJ	AL03-	1.0000		1.0000	1.0000
8 96K145-01 10 U	ıL S ADUALJ	AL03-	1.0000		1.0000	1.0000
9 96K145-02 10 u	IL S ADUALJ	AL03-	1.0000		1.0000	1.0000
10 96K145-03 10 t	ıL S ADUALJ	AL03-	1.0000		1.0000	1.0000
11 96K145-04 1.0g	m S ADUALJ	AL03-	1.0000		1.0000	1.0000
12 96K145-05 1.0g	m S ADUALJ	AL03-	1.0000		1.0000	1.0000
13 DCC2 GAS 1 PPM	1 ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000
14 96K145-06 1.0g	m S ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000
15 96K145-07 1.0g	n S ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000
16 96K145-08 1.0g	m S ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000
17 96K145-09 1.0g	n S ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000
18 96K145-10 1.0g	m S ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000
19 96K145-11 1.0g	m S ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000
20 96K145-12 1.0g	m S ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000
21 96K145-13 1.0g	m S ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000
22 96K145-14 1.0g	m S ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000
23 96K145-15 1.0g		AL03-	1.0000	1.0000	1.0000	1.0000
24 96K145-05M 1.0g		AL03-	1.0000	1.0000	1.0000	1.0000
25 96K145-05S 1.0g		AL03-	1.0000	1.0000	1.0000	1.0000
26 DCC3 GAS 1 PPM	f ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000
27 VAL03148	ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000
28 VAL0314L 1 PPM	GAS ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000
29 VAL0314C 1 PPM		AL03-	1.0000	1.0000	1.0000	1.0000
30 96K145-16 1.0g		AL03-	1.0000	1.0000	1.0000	1.0000
31 96K145-17 1.0g		AL03-	1.0000	1.0000	1.0000	1.0000
32 96K145-18 1.0g	m S ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000
33 96K145-19 1.0g	m S ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000
34 96K145-20 1.0g	m S ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000
35 96K145-21 1.0g		AL03-	1.0000	1.0000	1.0000	1.0000
36 96K145-19M 1.0g		AL03-	1.0000	1.0000	1.0000	1.0000
37 96K145-19S 1.0g		AL03-	1.0000	1.0000	1.0000	1.0000
38 DCC4 GAS 1 PPM		AL03-	1.0000	1.0000	1.0000	1.0000
	L W ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000
40 VAL0414B	ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000
	gmS ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000
	gmS ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000
	gmS ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000
	uLS ADUALJ	ALO3-	1.0000	1.0000	1.0000	1.0000
	uls ADUALJ	ALO3-	1.0000	1.0000	1.0000	1.0000
46 96L008-05 10		AL03-	1.0000	1.0000	1.0000	1.0000
47 96L009-02 1.0		AL03-	1.0000	1.0000	1.0000	1.0000
	gmS ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000
49 CHECK GAS STD.	ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000
50 DCC5 GAS 1 PPM	ADUALJ	AL03-	1.0000	1.0000	1.0000	1.0000

EMAX LABORATORIES

		_							
		INITIAL CALIBRATION							
GC#14	_	GASOLINE		LIBRATION 18-Nov-96 BROMOFLOUROBENZENE					
Data	Conc.	Area	Response	Conc.	Area	Response			
File	ppb		Factor	ppb		Factor			
BK18-3	100	218726	4.572E-04	30	49594	6.049E-04			
BK18-4	500	971740	5.145E-04	40	63250	6.324E-04			
BK18-5	1000	2378843	4.204E-04	50	82270	6.078E-04			
BK18-6	3000	6639149	4.519E-04	80	146076	5.477E-04			
BK18-7	5000	10379818	4.817E-04	100	189087	5.289E-04			
	% Relative Std. Deviation		7%	% Relative Std. Deviatio		7%			
	Average Resp	onse Factor	4.651E-04	Average Respo	onse Factor	5.843E-04			

	DAILY CALIBRATION CHECK								
DATE	DATA FILE	DCC#	RF(E-04)	%DIFF	%SURR. REC.	COMMENTS			
12/3/96	B L03-2	1	4.722	2	110				
	-13	2	5.134	10	109				
\downarrow	- 26	3	5.154	1/	108				
12/4/96	-38	4	5.261	13	106				
V	150	5	4.673	1	107				
	·								

STANDARDS								
ANALYTE	ICAL STD.	BFB	CHECK STD.					
Int. Standard	S16A-01-04-0	S16C-01-66-02	S16B-01-01-01					
Conc. (ppm)	2500	50	5000					
SOURCE	RESTEK	RESTEK	MOBIL					

Analyzed By: EAU / 11/20/94

Checked By: WTN

LABORATORY REPORT FOR

RCI

FORT BAKER / PROJECT 96-12

EPA M8015 TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 96K145

DECEMBER 13, 1996

CASE NARRATIVE

CLIENT:

RCI

PROJECT:

FORT BAKER / PROJECT 96-12

SDG:

96K145

EPA M8015 TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Twenty-one (21) soil samples were received on 11/29/96 to be analyzed for Total Petroleum Hydrocarbons by M8015 in accordance with SW846 and Leaking Underground Fuel Tank (LUFT) Field Manual, SWRCB, Dept. of Health Service, CA (1988).

1. Holding Time

Analytical holding time was met.

2. Surrogate Recovery

All recoveries were within the QC limits.

3. Matrix Spike/Matrix Spike Duplicate

All recoveries and RPD were within the QC limits.

4. Lab Control Sample/Lab Control Sample Duplicate

All recoveries and RPD were within the QC limits.

5. Method Blank

Method blank was free of contamination.

6. Calibration

Initial calibration was at five-point and continuing calibrations were carried out at 10-samples interval. All QC requirements were met.

7. Sample Analysis

All sample analyses met QC requirements.

001

EPA METHOD M8015 TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

CTENT: RCI DATE COLLECTED: 11/27/96
I JECT: Fort Baker / Project 96-12 DATE RECEIVED: 11/29/96
BAICH NO.: 96K145 DATE EXTRACTED: 12/02/96
MATRIX: SOIL DATE ANALYZED: 12/03/96

SAMPLE ID	CONTROL NO	RESULT (mg/kg	H-C) RANGE	% RECO SURR1	VERY SURR2	DL FACTOR	MOIST (%)	RL (mg/kg)
T1-N T1-S PL-1 PL-2 PL-3 PL-4 PL-5 PL-6 PL-7 PL-8 PL-9 PL-10 MBLK1S	K145-01 K145-02 K145-03 K145-04 K145-05 K145-06 K145-07 K145-08 K145-09 K145-10 K145-11 K145-12 DSL003SB	8300 7600 13000 95 45 ND ND 290 ND 25 82 ND	C10-C22 C10-C20 C10-C22 C10-C24 C14-C24 N.A. N.A. C14-C24 N.A. C12-C20 C13-C18 N.A. N.A.	DO DO 101 104 102 106 102 101 102 104 103	DO DO 122 129 120 133 121 121 120 134 123 124	20 20 20 1 1 1 1 1 1 1	17.4 18.8 19.5 14.0 25.0 13.6 18.3 18.3 20.4 16.NA	48.43 49.269 2.33 2.67 2.45 2.45 2.45 12.59 2.32

QC LIMIT: 65-135 65-135 SURR1 : Bromobenzene

ŠURR1: BromobenzeneSURR2: HexacosaneRL: Report Limit

Sample DSL003SB was analyzed on 12/02/96.

DO: Diluted Out

EPA METHOD M8015 TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

IENT: RCI DATE COLLECTED: 11/27/96

DJECT: Fort Baker / Project 96-12 DATE RECEIVED: 11/29/96

ICH NO.: 96K145 DATE EXTRACTED: 12/05/96

MATRIX: SOIL DATE ANALYZED: 12/06/96

SAMPLE ID	CONTROL NO	RESULT (mg/kg)	H-C RANGE	% RECO	OVERY SURR2	DL MOIST FACTOR (%)	RL (mg/kg)
QC-1 SP-1 SP-2 SP-3 SP-4 SP-5 SP-6 SP-7 QC-2 MBLK2S	K145-13 K145-14 K145-15 K145-16 K145-17 K145-18 K145-19 K145-20 K145-21 DSL006SB	ND ND 120 260 ND ND 98 60 ND	N.A. N.A. C11-C22 C11-C22 N.A. N.A. C12-C24 C17-C24 N.A. N.A.	965 944 9765 9999 9999	102 955 98 998 1067 975	1 16.8 1 18.6 1 16.1 1 11.4 1 16.8 1 12.5 1 11.7 1 12.9 1 12.1	2.46 2.38 2.26 2.4 2.29 2.27 2.3 2.28

65-135

65-135

OC LIMIT: SURR1 :

: Bromobenzene

SURR2 RL : Hexacosane : Report Limit

Sample DSL006SB was analyzed on 12/05/96.

EMAX QUALITY CONTROL DATA LCS/LCD ANALYSIS

CLIENT:

RCI

POSTECT:

Fort Baker / Project 96-12

D: MAIRIX:

EPA M8015

% MOISTURE:

SOIL

BATCH NO.:

96K145

SAMPLE ID: CONTROL NO.: LCS1S/LCS1SD

DSL003SL/C

DATE RECEIVED: NA

DATE EXTRACTED: 12/02/96

DATE ANALYZED: 12/02/96

ACCESSION:

Diesel

96K145, 96L001

	BLNK	R
PARAMETER	(mg/	'k

RSLT SPIKE AMT BS RSLT

ND

500.00 522.00

BS SPIKE AMT BSD RSLT (g) (mg/kg) (mg/kg) % REC (mg/kg) (mg/kg) 104 500.00

548.00

BSD % REC

110

RPD % %

5

QC LIMIT RPD LIMIT

% 70-130 35

SURROGATE PARAMETER	SPIKE AMT BS RSLT (mg/kg) (mg/kg)		BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT	
Bromobenzene	100.00	90.00	90	100.00	92.00	92	65 - 135	
Hexacosane		109.00	109	100.00	112.00	112	65 - 135	

EMAX QUALITY CONTROL DATA LCS/LCD ANALYSIS

CLIENT:

RCI

`'ECT: Fort Baker / Project 96-12

OD:

EPA M8015

MATRIX:

SOIL

% MOISTURE:

NA

BATCH NO.:

96K145

SAMPLE ID:

LCS2S/LCS2SD

CONTROL NO.: DSL006SL/C

DATE RECEIVED:

NA

DATE EXTRACTED: 12/05/96
DATE ANALYZED: 12/05/96

ACCESSION:

96K145, 96L017, 96L018, 96L013

PARAMETER

Diesel

BLNK RSLT SPIKE AMT BS RSLT (mg/kg) (mg/kg)

ND

(mg/kg) % REC (mg/kg) (mg/kg)535.00 107 500.00 500.00

SPIKE AMT BSD RSLT -----

570.00

BSD % REC 114

QC LIMIT RPD LIMIT RPD % %

70-130 35

BSD RSLT SPIKE AMT BS RSLT BS SPIKE AMT BSD QC LIMIT % REC (mg/kg) (mg/kg) % REC (mg/kg) (mg/kg) % REC % SURROGATE PARAMETER 100.00 88.00 88 Bromobenzene 100.00 89.00 89 65 - 135 Hexacosane 100.00 87.00 87 100.00 86.00 86 65-135

BS

EMAX QUALITY CONTROL DATA MS/MSD ANALYSIS

CLIENT:

RCI

HECT:

Fort Baker / Project 96-12

iOD:

EPA M8015

MATRIX:

SOIL

% MOISTURE:

11.4

BATCH NO.:

SP-3

SAMPLE ID: CONTROL NO.:

ACCESSION:

96K145

96K145

K145-16

SMPL RSLT SPIKE AMT MS RSLT MS SPIKE AMT MSD RSLT MSD (mg/kg) (mg/kg) (mg/kg)

PARAMETER Diesel

260.00 1130.00 1510.00

% REC (mg/kg) -----111 1130.00

(mg/kg) -----1130.00

DATE RECEIVED:

% REC 77

DATE EXTRACTED: 12/05/96

DATE ANALYZED: 12/06/96

RPD QC LIMIT RPD LIMIT % % 36

11/29/96

% 65-135

SPIKE AMT MS RSLT MS SPIKE AMT MSD RSLT MSD QC LIMIT % REC SURROGATE PARAMETER (mg/kg) (mg/kg) (mg/kg) (mg/kg) % REC % 113.00 95.90 85 Bromobenzene 113.00 94.80 84 65 - 135 113.00 Hexacosane 100.00 89 113.00 97.10 86 65-135

INITIAL CALIBRATION DATA METHOD M8015 (Diesel)

Lab Name: EMAX

SDG: 96K145

Instrument ID: <u>GC-5</u>

GC Column: DB-5

Date Analyzed: 11/08/96

Date Analyzed: 11/08/96

	T.						
		DIESEL	•			BROMOBENZENE	HEXACOSANE
DATA FILE	CONC.	AREA x 10 ³	CALIBRATION FACTOR x10 ³	DATA FILE	CONC.	CALIBRATION FACTOR x10 ³	CALIBRATION FACTOR x10 ³
KM08-09	10	161.9	16.19	KM08-1	70	11.30	13.70
KM08-10	100	1641	16.41	KM08-2	80	12.07	14.46
KM08-11	500	8872	17.74	KM08-4	100	11.82	14.03
KM08-12	1000	17822	17.82	KM08-5	120	12.11	14.60
KM08-13	2000	35695	17.85	KM08-6	130	11.94	14.38
	MEAN Relative Std. Dev.		17.20	Me	AN	11.85	14.23
			5%	Relative	Std. Dev.	3%	3%

	DAILY CALIBRATION CHECK									
DATE	DATA FILE	ACF x 10 ³	CF x 10 ³	% DIFF.						
12/02/96	LM02-03	17.20	18.49	7						
12/02/96	LM02-17	17.20	18.26	6						
12/02/96	LM02-30	17.20	18.47	4						
12/02/96	LM02-36	17.20	18.39	7						
12/02/96	LM02-50	17.20	17.75	3						
12/02/96	LM02-67	17.20	17.56	2						
12/02/96	LM02-83	17.20	17.56	10						
12/02/96	LM02-95	17.20	17.85	4						
12/02/96	LM02-103	17.20	18.12	5						
12/02/96	LM02-111	17.20	16.63	3						
<u> </u>										

SAMPLE NAME	METHOD NAME	DATA FILE	AMOUNT INJECTED	INT.STD. AMOUNT	DILUTION FACTOR	SAMPLE WEIGHT
1 MECL	8015M	LM02-	1.0000	1.0000	1.0000	1.000
2 DCC1 D500	8015M	LM02-	1.0000	1.0000	1.0000	1.000
3 DCC1 JP5 500	8015M	LMO2-	1.0000	1.0000	1.0000	1.000
4 DCC1 MO 500	8015M	LM02-	1.0000	1.0000	1.0000	1.000
5 MECL	8015M	LM02-	1.0000	1.0000	1.0000	1.000
6 DSL003SB	8015M	LM02-	1.0000	1.0000	1.0000	1.000
7 DSL003SL	8015M	LM02-	1.0000	1.0000	1.0000	1.000
8 DSL003SC	8015M	LM02-	1.0000	1.0000	1.0000	1.000
9 96L001-02	8015M	LMO2-	1.0000	1.0000	1.0000	1.000
10 96L001-03	8015M	LM02-	1.0000	1.0000	1.0000	1.000
11 96L001-04	8015M	LM02-	1.0000	1.0000	1.0000	1.000
12 96L001-05	8015M	LM02-	1.0000	1.0000	1.0000	1.000
13 96L001-06	8015M	LM02-	1.0000	1.0000	1.0000	1.000
14 96L001-07	8015M	LM02-	1.0000	1.0000	1.0000	1.000
15 96L001-08	8015M	LM02-	1.0000	1.0000	1.0000	1.000
16 MECL	8015M	LM02-	1.0000	1.0000	1.0000	1.000
17 DCC2 D500	8015M	LM02-	1.0000	1.0000	1.0000	1.000
18 96L001-08M	8015M	LM02-	1.0000	1.0000	1.0000	1.000
19 96L001-08S	8015M	LM02-	1.0000	1.0000	1.0000	1.000
20 96L001-09	8015M	LM02-	1.0000	1.0000	1.0000	1.000
21 96K145-01	8015M	LM02-	1.0000	1.0000	1.0000	1.000
22 96K145-02	8015M	LM02-	1.0000	1.0000	1.0000	1.000
23 96K145-03	8015M	LM02-	1.0000	1.0000	1.0000	1.000
24 MECL	8015M	LM02-	1.0000	1.0000	1.0000	1.000
25 96K145-04	8015M	LM02-	1.0000	1.0000	1.0000	1.000
26 96K145-05	8015M	LM02-	1.0000	1.0000	1.0000	1.000
27 96K145-06	8015M	LM02-	1.0000	1.0000	1.0000	1.000
28 96K145-07	8015M	LM02-	1.0000	1.0000	1.0000	1.000
9 MECL	8015M	LM02-	1.0000	1.0000	1.0000	1.000
BO DCC3 D500	8015M	LM02-	1.0000	1.0000	1.0000	1.000
31 96K145-08	8015M	LM02-	1.0000	1.0000	1.0000	1.000
32 96K145-09	8015M	LM02-	1.0000	1.0000	1.0000	1.000
33 96K145-10	8015M	LM02-	1.0000	1.0000	1.0000	1.000
34 96K145-12	8015M	LM02-	1.0000	1.0000	1.0000	1.000
35 96K145-01T 20X	8015M	LM02-	1.0000	1.0000	20.0000	1.000
6 DCC4 D500	8015M	LM02-	1.0000	1.0000	1.0000	1.000
7 DCC4 JP5 500	8015M	LM02-	1.0000	1.0000	1.0000	1.000
8 DCC4 MO 500	8015M	LM02-	1.0000	1.0000	1.0000	1.000
9 DSL004SB	8015M	LM02-	1.0000	1.0000	1.0000	1.000
0 DSL004SL	8015M	LM02-	1.0000	1.0000	1.0000	1.000
1 DSL004SC	8015M	LM02-	1.0000	1.0000	1.0000	1.000
2 96L004-02	8015M	LM02-	1.0000	1.0000	1.0000	1.000
3 96L004-03	8015M	LM02-	1.0000	1.0000	1.0000	1.000
4 96K127-05	8015M	LM02-	1.0000	1.0000	1.0000	1.000
5 96K127-06	8015M	LM02-	1.0000	1.0000	1.0000	
6 96K127-07	8015M	LM02-	1.0000			1.000
7 96K127-08	8015M			1.0000	1.0000	1.000
8 96K127-09	8015M	LM02- LM02-	1.0000	1.0000	1.0000	1.000
9 MECL	8015M		1.0000	1.0000	1.0000	1.000
0 DCC5 D500		LM02-	1.0000	1.0000	1.0000	1.000
1 96K127-10	8015M	LM02-	1.0000	1.0000	1.0000	1.000
2 96K127-11	8015M	LM02-	1.0000	1.0000	1.0000	1.000
32 96K127-11	8015M	LM02-	1.0000	1.0000	1.0000	1.000
	8015M	LMO2-	1.0000	1.0000	1.0000	1.0000
64 96K127-13 5 96K127-14	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
in 7681//#14	8015M	LM02-	1.0000	1.0000	1.0000	1.0000

				. 31.4	*		
	58 96K127-02S	8015M	LMO2-	1.0000	1.0000	1.0000	1.0000
	59 96K127-03	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	60 96K127-04	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	61 MECL	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	62 77777	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	63 96K127-01	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	64 MECL	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	65 96K127-16	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	66 MECL	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	67 DCC7 D500	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	68 DCC7 JP5 500	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	69 DCC7 MO 500	8015M	LMO2-	1.0000	1.0000	1.0000	1.0000
	70 96K145-02T 20X	8015M	LM02-	1.0000	1.0000	20.0000	1.0000
	71 96K145-03T 20X	8015M	LM02-	1.0000	1.0000	20.0000	1.0000
	72 96K127-16T 5X	8015M	LM02-	1.0000	1.0000	5.0000	1.0000
	73 MECL	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	74 96K145-11T 5X	8015M					
			LM02-	1.0000	1.0000	5.0000	1.0000
	75 MECL	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	76 DSL005SB	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	77 DSL005SL	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	78 DSL005SC	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	79 96L009-02	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	80 96L009-03	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	81 96K14O-02	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	82 MECL	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	83 DCC8 D500	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	84 96K140-02M	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	85 96K140-02S	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	86 96K140-03	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	87 96K140-04	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	88 96K140-05	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	89 96K140-06	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	90 96K140-07	8015M	LM02-			1.0000	1.0000
	91 96K140-08			1.0000	1.0000		
		8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	92 96K140-09	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	93 96K140-10	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	94 MECL	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	95 DCC9 D200	8015M	LMO2-	1.0000	1.0000	1.0000	1.0000
	96 96K140-11	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	97 96K140-12	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	98 96K140-13	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	99 96K14O-14	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
1	00 96K14O-15	8015M	LMO2-	1.0000	1.0000	1.0000	1.0000
1	01 MECL	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
1	02 DSK030WB	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
1	03 DCC10 D500	8015M	LMO2-	1.0000	1.0000	1.0000	1.0000
	04 DSK030WL	8015M	LMO2-	1.0000	1.0000	1.0000	1.0000
1	05 DSK030WC	8015M	LMO2-	1.0000	1.0000	1.0000	1.0000
	06 96K140-16 W	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	07 96K140-16M W	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	08 96K140-16S W	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	09 96K140-17	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
		8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	11 DCC11 D500	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
	12 DCC11 JP5 500	8015M	LM02-	1.0000	1.0000	1.0000	1.0000
1	13 DCC11 MO 500	8015M	LM02-	1.0000	1.0000	1.0000	1.0000

SAMPLE NAME	METHOD NAME	DATA FILE	AMOUNT INJECTED	INT.STD. AMOUNT	DILUTION FACTOR	SAMPLE WEIGHT
1 SURR 100	M8015	LN05-	1.0000	1.0000	1.0000	1.0000
2 DCC1 D500	M8015 -	LN05-	1.0000	1.0000	1.0000	
3 DCC1 JP-5 500	M8015	LNOS-	1.0000	1.0000	1.0000	1.0000
4 DCC1 HO 500	M8015	LN05-	1.0000	1.0000	1.0000	
5 MECL	H8015	LN05-	1.0000	1.0000	1.0000	1.0000
6 DSL006SB	M8015	LN05-	1.0000	1.0000	1.0000	1.0000
7 DSL006SL	M8015	- LN05-	1.0000	1.0000	1.0000	1.0000
8 DSL006SC	H8015	LN05-	1.0000	1.0000	1.0000	1.0000
9 96L018-01	M8015	- LN05-	1.0000	1.0000	1.0000	1.0000
10 96L018-01M	M8015	LN05-	1.0000	1.0000	1.0000	1.0000
11 96L018-015	M8015	LN05-	1.0000	1.0000	1.0000	1.0000
12 MECL	M8015	LN05-	1.0000	1.0000	1.0000	
13 96L018-02	M8015	LN05-	1.0000	1.0000	1.0000	1.0000
14 96L018-03	M8015	LN05-	1.0000		1.0000	1.0000
15 96L018-04	M8015	LN05-	1.0000	1.0000	1.0000	- 1.0000
16 96L018-05	M8015	LN05-	1.0000		1.0000	1.0000
17 HECL	M8015	LN05-	1.0000		1.0000	1.0000
18 DCC2 D500	H8015	LN05-	1.0000		1.0000	
19 MECL	H8015	LN05-	1.0000		1.0000	1.0000
20 96L017-02	M8015	LN05-	1.0000	1.0000		1.0000
21 96L017-03	M8015	LNO5-	1.0000		1.0000	1.0000
22 96L017-03H	M8015	LNO5-	1.0000			1.0000
23 96L017-03S	M8015	LN05-	1.0000		1.0000	1.0000
24 MECL	M8015	LN05-	1.0000			1.0000
25 96L017-04	M8015	LNO5-	1.0000		1.0000	1.0000
26 96L017-05	M8015	LNO5-	1.0000		1.0000	
27 MECL	M8015	LNOS-	1.0000		1.0000	1.0000
28 96L013-01	H8015	LN05-	1.0000		1.0000	1.0000
29 96L013-01T-10X	M8015	LNOS-	1.0000		10.0000	1.0000
30 96L013-02	M8015	LN05-	1.0000		1.0000	1.0000
31 DCC3 D500	M8015	LN05-	1.0000		1.0000	1.0000
32 96K145-17	M8015	LN05-	1.0000		1.0000	1.0000
33 96K145-13	M8015	LN05-	1.0000		1.0000	1.0000
34 96K145-18	M8015	LNO5-	1.0000		1.0000	1.0000
35 MECL	M8015	LN05-	1.0000	1.0000	1.0000	1.0000
36 96K145-19	M8015	LNO5-	1.0000		1.0000	1.0000
37 MECL	M8015	LNOS-	1.0000		1.0000	1.0000
38 96K145-21	M8015	LN05-	1.0000		1.0000	1.0000
39 96K145-14	M8015	LN05-	1.0000		1.0000	1.0000
40 MECL	H8015	LNO5-	1.0000		1.0000	
41 DCC4 D500	M8015	LNOS-	1.0000		1.0000	1.0000
42 96K145-16	M8015	LN05-	1.0000		1.0000	1.0000
43 96K145-16H	H8015	LNO5-	1.0000		1.0000	1.0000
44 96K145-16S	M8015	LN05-	1.0000		1.0000	
45 96K145-15	H8015	LN05-	1.0000		1.0000	1.0000
46 96K145-20	M8015	LN05-	1.0000		1.0000	1.0000
47 MECL	M8015	LN05-	1.0000		1.0000	1.0000
48 DCC5 D500	M8015	LN05-	1.0000		1.0000	1.0000
49 DCC5 JP-5 500	M8015	LN05-	1.0000		1.0000	1.0000
50 DCC5 MO 500	M8015	LN05-	1.0000		1.0000	1.0000
110 444	M8015			1.0000	1.0000	

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EXTRACTION LOG FOR TPH

ren Bato	th DSLOOGS	Method	3550 □ 3580 □	3520 □ 3540 □	CLP 🗆		Book # Ch	YT-E06-003	Page # 117
Matrix	poil	Starting Date	12/5/96	Time	10:00		Ending Date	12/5/96	Time 12:00
	Lab	Sample	Extract				Standards	1D	Amount Added (ml)
	Sample	Amount	Volume		Notes		Surrogate	509001193	10.0
	ID	(g/ ml)	(mi)				LCS/MS	109301070	- 1.0
DS	L006SB	_	10			*	* ms		2.0
	Sl	_	,	×					
	Se	-		K			Reagent		Lot# / ID
26/	t145 - 13	10.0					CH₂Cl₂	962	656
	- 14	1					Na₂SO₄	3520	9611
	-15								
	-16								
	-16M			**					
	-165	-		1× 1×					
	-/7								
	-18						SDG#	Ex	tract Location
	-19								
	-20								
4	-21								
961	017 - 02						Comments	:	
	- 03						-		
The Co	~ 03H								
	- 035				-				
	-04								
	-05								
96 6	018 - 01							Prepared By:	os
	<u> </u>						St	tandard Added By:	OSTFY
170 A	: 015							Checked By:	OS OSJFY FY
	20								01
	03							•	0.1
	04	1	1				Extr	racts Received By:	· •

EXTRACTION LOG FOR TPH

ren Batci	n 05 coo65	Method	3550 □ 3580 □	3520 □ 3540 □	CLP 🗆		Book # Ch	(YT-E06-003	Page #	118
atrix	Soil	Starting Date	16/05/96	Time	10:00		Ending Date	12/55/96	Time	12:0
	Lab	Sample	Extract				Standards	ID	Amount Ac	ided (ml)
	Sample	Amount	Volume		Notes		Surrogate	50950193	ك/) , S
	ID	(g/m²l)	(ml)				LCS/MS	505/BC1 07 0C		. O
6L01		10.0	100			_				
76 LO	18 - 05	10	10					_		
	-02	10	10				Reagent		Lot# / ID	· · · · · · · · · · · · · · · · · · ·
	•				7		CH ₂ Cl ₂	962	656	
							Na₂SO₄	352	8 9611	
<u> </u>										
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		1/								
		1								
				,		$\neg \neg$	L.,			
						$\neg \uparrow$	SDG#	Ev	tract Location	
							SDG#		HACE LOCATION	
<u> </u>						-				
	·						L			
				 			Comments	:		
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	-	_		 /				·		
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							·			į
								Prepared By: tandard Added By:	05	1 FY
							s			
								Checked By:		E7
									C	012
								•		UI4
								tracts Received By		

EXTRACTION LOG FOR TPH

rep. Batch DS L CO 3	S Method	3550 □ 3580 □	3520 CLP CLP C	Book # CKYT-E06-003	114 Page #
atrix Soil		12/02/91	/ Time / / / / 00	Ending Date /2/02/46	Time /7: 00
Lab	Sample	Extract		Standards ID	Amount Added (ml)
Sample	Amount	Volume	Notes	Surrogate 509 (-0/-19-3	10.0
ID	(g/ŋイi)	(ml)		LCS/MS - 5098-01-07-e	\$ 1.0
OSL003'-5B	, -	10.0			
- SL	* _				
- SC	<u> </u>			Reagent	Lot# / ID
966001 - 07	2 /0.0			CH ₂ Cl ₂ 96	2656
- 03	>			Na ₂ SO ₄ 35728	39611
_04	,				
_05	-				
-06	.				
-07				,	
-09					
- 081	n			SDG# Ex	dract Location
-08					
_09					
96 K145 - 01	,				:
-02	1 1			Comments:	
-03					
-94					
-05	-				
-06					
-07	, ,				
-01				Prepared By	05
-50				Standard Added By	05 05/NB
- 10				Checked By	
_ 1(
-17					01
				Extracts Received Ru	•

LABORATORY REPORT FOR

RCI

FORT BAKER / PROJECT 96-12

EPA 5030A/8020A BTEX

SDG#: 96K145

DECEMBER 09, 1996

CASE NARRATIVE

CLIENT:

RCI

PROJECT:

FORT BAKER / PROJECT 96-12

SDG:

96K145

EPA 5030A/8020A BTEX

Twenty-one (21) soil samples were received on 11/29/96 to be analyzed for volatile organics by EPA Method 8020A in accordance with USEPA SW846.

1. Holding Time

Analytical holding time was met.

2. Surrogate Recovery

All surrogate recoveries were within QC limits.

3. Matrix Spike/Matrix Spike Duplicate

All recoveries and RPDs were within QC limits.

4. Lab Control Sample

All recoveries were within QC limits.

5. Method Blank

Method blanks were free of contamination.

6. Calibration

Initial calibration was at five-point and continuing calibrations were carried out at 10-samples interval. All QC requirements were met.

7. Sample Analysis

All sample analyses were done within QC requirements.

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PI BZ SZ	LIENT: ROJECT: ATCH NO.: AMPLE ID: ONTROL NO.: MOISTURE:		/ Project	96-12	DATE RECEI	VED: CTED: ZED:	11/27/96 11/29/96 NA 12/03/96 SOIL 200
Be To	ARAMETERS enzene oluene chylbenzene otal Xylenes	5		RESUI (ug/l NI 3700 4200 25000	kg) D 0 0	1	RL (kg) 210 210 210 640
-	URROGATE PAF	RAMETER enzene		% REC(10(OVERY 0 0		IMIT 135

CLIENT: PROJECT: BATCH NO.: SAMPLE ID: CONTROL NO.: % MOISTURE:	RCI Fort Baker 96K145 T1-S K145-02 18.8	/	Project	96-12	DATE RECEI DATE EXTRA DATE ANALY MATRIX:	ACTED:	11/27/96 11/29/96 NA 12/03/96 SOIL 200
PARAMETERS				RESU (ug/		(ug/	RL 'kg)
Benzene Toluene Ethylbenzene Total Xylenes	5			220 1200	D	1	.232 .232 .232 .700
SURROGATE PAR	RAMETER			% REC	OVERY	QC I	IMIT
Bromofluorobe	enzene			9	1	65-	135
=======================================		==:	=======	========		======	=======

CLIENT: RCI PROJECT: Fort BATCH NO.: 96K14 SAMPLE ID: PL-1 CONTROL NO.: K145- % MOISTURE: 19.5		DATE DATE MATRI	COLLECTED: 11/27/96 RECEIVED: 11/29/96 EXTRACTED: NA ANALYZED: 12/04/96 IX: SOIL TION FACTOR: 200
PARAMETERS		RESULTS (ug/kg)	RL (ug/kg)
Benzene Toluene Ethylbenzene Total Xylenes		ND 1700 5400 26000	1242 1242 1242 3720
SURROGATE PARAMETE Bromofluorobenzene	-	% RECOVERY 111	QC LIMIT 65-135

CLIENT: RCI PROJECT: Fort Bake BATCH NO.: 96K145 SAMPLE ID: PL-2 CONTROL NO.: K145-04 % MOISTURE: 14.0	r / Project	96-12 DATE R DATE E DATE A MATRIX	OLLECTED: 11/27/96 ECEIVED: 11/29/96 EXTRACTED: NA NALYZED: 12/03/96 E: SOIL ON FACTOR: 1
PARAMETERS		RESULTS (ug/kg)	RL (ug/kg)
Benzene Toluene Ethylbenzene Total Xylenes		ND ND ND ND	5.81 5.81 5.81 17.4
SURROGATE PARAMETER		% RECOVERY	QC LIMIT
Bromofluorobenzene		89	65-135
=======================================	========	=======================================	=======================================

CLIENT: PROJECT: BATCH NO.: SAMPLE ID: CONTROL NO.: % MOISTURE:	RCI Fort Baker 96K145 PL-3 K145-05 25.3	/ Project	96-12	DATE COLLE DATE RECEI DATE EXTRA DATE ANALY MATRIX: DILUTION F	VED: CTED: ZED:	11/27/96 11/29/96 NA 12/03/96 SOIL 1
PARAMETERS			RESUI		(ug/	RL kg)
Benzene Toluene Ethylbenzene Total Xylene	s		NI NI NI NI	D D	6	.69 .69 69
SURROGATE PA	RAMETER		% REC	OVERY	OC I	IMIT
					~	
Bromofluorob	enzene		10:	2	65-	135
=========	========	=======	=======	=	======	:======

PROJECT: BATCH NO.: SAMPLE ID: CONTROL NO.:	======== RCI Fort Baker / 96K145 PL-4 K145-06 25.0	Project	96-12	DATE COLLECT DATE RECEIVE DATE EXTRACT DATE ANALYZE MATRIX: DILUTION FAC	ED: 11/29/96 EED: NA ED: 12/03/96 SOIL
PARAMETERS Benzene Toluene Ethylbenzene Total Xylenes			RESU (ug/ N N N N	kg) D D D	RL (ug/kg) 6.67 6.67 6.67 20
SURROGATE PAR Bromofluorobe			% REC	OVERY 6	QC LIMIT 65-135
=========				==========	=========

May .	CLIENT: PROJECT: BATCH NO.: SAMPLE ID: CONTROL NO.: % MOISTURE:		Project	96-12	DATE COLLEC DATE RECEIV DATE EXTRAC DATE ANALYZ MATRIX: DILUTION FA	ED: 11/29/9 TED: NA ED: 12/03/9 SOIL	6
							=
	PARAMETERS			RESU! (ug/l		RL (ug/kg)	
	Benzene Toluene Ethylbenzene Total Xylenes	5		NI NI NI NI	D D	5.79 5.79 5.79 17.4	
	SURROGATE PAR	RAMETER		% REC	OVERY	OC LIMIT	
	Bromofluorobe	enzene		9 (6	65-135	
	===========	=========	=======	======:	========	========	=

11/27/96 11/29/96 DATE COLLECTED: CLIENT: RCI DATE RECEIVED:
DATE EXTRACTED:
DATE ANALYZED: PROJECT: Fort Baker / Project 96-12 BATCH NO.: NA 12/03/96 96K145 SAMPLE ID: PL-6 CONTROL NO.: K145-08 % MOISTURE: 18.5 MATRIX: SOIL DILUTION FACTOR: 1 RESULTS RL**PARAMETERS** (ug/kg) (ug/kg) _____ 6.13 6.13 6.13 NDBenzene Toluene ND Ethylbenzene Total Xylenes ND ND 18.4 SURROGATE PARAMETER % RECOVERY QC LIMIT Bromofluorobenzene 77 65-135

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N .	CLIENT: PROJECT: BATCH NO.: SAMPLE ID: CONTROL NO.: MOISTURE:	RCI Fort Baker 96K145 PL-7 K145-09 17.3	/ Project	96-12	DATE COLLECT DATE RECEIV DATE EXTRACT DATE ANALYZEMATRIX:	ZED: ZED:	11/27/96 11/29/96 NA 12/03/96 SOIL 1
						=====	======
	PARAMETERS			RESUI		(ug/	RL kg)
	Benzene Toluene Ethylbenzene Total Xylenes	5		NI NI NI NI		6	.05 .05 .05
	SURROGATE PAR	RAMETER		% REC	OVERY	QC L	IMIT
	Bromofluorobe	enzene		9()	65-	135
	==========	========	========	=======		======	======

CLIENT: PROJECT: BATCH NO.: SAMPLE ID: CONTROL NO.: % MOISTURE:		/ Project	DATE	RECEIVED: EXTRACTED: ANALYZED: IX:	11/27/96 11/29/96 NA 12/04/96 SOIL 1
PARAMETERSBenzene Toluene Ethylbenzene Total Xylene	s		RESULTS (ug/kg) ND ND ND ND ND ND	6	RL /kg) 5.12 5.12 5.12 6.12
SURROGATE PA Bromofluorob	RAMETER enzene		% RECOVERY 82	~ ~ ~	LIMIT -135
========	=======	=======	=======================================	=======================================	======

CLIENT: PROJECT: BATCH NO.: SAMPLE ID: CONTROL NO.: % MOISTURE:	96K145 PL-9 K145-11		96-12	DATE COLLECTEI DATE RECEIVED DATE EXTRACTEI DATE ANALYZED MATRIX: DILUTION FACTO	: 11/29/96 D: NA : 12/04/96 SOIL
PARAMETERS Benzene Toluene Ethylbenzene Total Xylene			RESU (ug/ NI NI NI NI	kg) D D D	RL (ug/kg) 6.28 6.28 6.28 18.8
SURROGATE PA Bromofluorob	RAMETER enzene		% REC	OVERY (9	QC LIMIT 65-135
=========	========	=======	========	=======================================	========

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CLIENT: PROJECT: BATCH NO.: SAMPLE ID: CONTROL NO.: MOISTURE:	96K145 PL-10 K145-12	Project	96-12	DATE RECEI	ACTED:	11/27/96 11/29/96 NA 12/04/96 SOIL 1
PARAMETERS			RESUI (ug/)		(ug/	RL 'kg)
Benzene Toluene Ethylbenzene Total Xylenes	3		NI NI NI NI		5	5.98 5.98 5.98
SURROGATE PAR	RAMETER		% REC	OVERY	OC I	IMIT
Bromofluorobe	enzene		87	 7	65-	135
==========		======	=======	========	======	=======

CLIENT: RCI PROJECT: Fort Baker / Project BATCH NO.: 96K145 SAMPLE ID: QC-1 CONTROL NO.: K145-13 % MOISTURE: 16.8	96-12 DATE RECE DATE EXTR	ECTED: 11/27/96 IVED: 11/29/96 ACTED: NA YZED: 12/04/96 SOIL FACTOR: 1
PARAMETERSBenzene Toluene Ethylbenzene Total Xylenes	RESULTS (ug/kg) ND ND ND ND ND ND	RL (ug/kg) 6.01 6.01 6.01 18
SURROGATE PARAMETER Bromofluorobenzene	% RECOVERY 84	QC LIMIT 65-135

CLIENT: RCI PROJECT: Fort Baker / BATCH NO.: 96K145 SAMPLE ID: SP-1 CONTROL NO.: K145-14 % MOISTURE: 18.6	Project 96-12	DATE COLLECTE DATE RECEIVED DATE EXTRACTE DATE ANALYZED MATRIX: DILUTION FACT	D: 11/29/96 ED: NA D: 12/04/96 SOIL
	DEC	======================================	
PARAMETERS		/kg)	RL (ug/kg)
Benzene Toluene Ethylbenzene Total Xylenes		ND ND ND ND	6.14 6.14 6.14 18.4
SURROGATE PARAMETER	% RE	COVERY	QC LIMIT
Bromofluorobenzene		83	65-135

Book.	CLIENT: PROJECT: BATCH NO.: SAMPLE ID: CONTROL NO.: % MOISTURE:	RCI Fort Baker 96K145 SP-2 K145-15 16.1	/ Project	96-12	DATE RECE	11/27/96 11/29/96 NA 12/04/96 SOIL 1
	PARAMETERS Benzene Toluene Ethylbenzene Total Xylenes	5		RESUI (ug/) NI NI NI NI	kg) 0 0	RL (kg) 5.96 5.96 5.96
	SURROGATE PAR Bromofluorobe		========	% RECO 95	OVERY 5 	 IMIT 135
	DI Donost I					

CLIENT: RCI PROJECT: Fort Baker / BATCH NO.: 96K145 SAMPLE ID: SP-3 CONTROL NO.: K145-16 % MOISTURE: 11.4	DATE DATE MATE	E RECEIVED: 11/29/96 E EXTRACTED: NA E ANALYZED: 12/04/96
PARAMETERS Benzene Toluene Ethylbenzene Total Xylenes	RESULTS (ug/kg) ND ND ND ND ND	RL (ug/kg) 5.64 5.64 5.64 16.9
SURROGATE PARAMETER Bromofluorobenzene	% RECOVERY 92	QC LIMIT 65-135
=======================================	=======================================	=======================================

CLIENT: PROJECT: BATCH NO.: SAMPLE ID: CONTROL NO.: % MOISTURE:		Project	96-12	DATE COLLECT DATE RECEIVED DATE EXTRACT DATE ANALYZEMATRIX:	CED: CTED:	======================================
		=======	=======		=====	======
PARAMETERS Benzene Toluene Ethylbenzene Total Xylenes	5		RESUI (ug/l NI NI NI NI	kg) D D D	(ug/l 6 6	RL kg) .01 .01 .01 18
SURROGATE PAR	RAMETER		% REC	OVERY	QC L	IMIT
Bromofluorobe	enzene		82	2	65-1	135
=========	=========	=======	=======	========	=====:	=======

CLIENT: PROJECT: BATCH NO.: SAMPLE ID: CONTROL NO.: MOISTURE:	RCI Fort Baker / 96K145 SP-5 K145-18 12.5	Project	96-12	DATE COLLECT DATE RECEIVED DATE EXTRACTED DATE ANALYZED MATRIX:	ED: 11/29/96 TED: NA ED: 12/04/96 SOIL
PARAMETERS Benzene Toluene Ethylbenzene Total Xylenes	5		RESU (ug/ N N N	kg) D D D	RL (ug/kg) 5.71 5.71 5.71 17.1
SURROGATE PAR Bromofluorobe	RAMETER enzene		% REC 10	OVERY 4 =========	QC LIMIT

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CLIENT: PROJECT: BATCH NO.: SAMPLE ID: CONTROL NO.: MOISTURE:	RCI Fort Baker / 96K145 SP-6 K145-19 11.7	Project	96-12	DATE RE DATE EX DATE AN MATRIX:	TRACTED: IALYZED:	11/27/96 11/29/96 NA 12/04/96 SOIL 1
			=======		========	=======
PARAMETERS			RESUI		(ug/	RL 'kg)
Benzene Toluene Ethylbenzene Total Xylenes	3		NI NI NI		5	5.66 5.66 17
SURROGATE PAR Bromofluorobe	RAMETER enzene		% REC 98	OVERY 8		IMIT 135

CLIENT: RCI PROJECT: Fort Baker / Project 96 BATCH NO.: 96K145 SAMPLE ID: SP-7 CONTROL NO.: K145-20 % MOISTURE: 12.9	6-12 DATE RECE	SOIL
PARAMETERS Benzene Toluene Ethylbenzene Total Xylenes	RESULTS (ug/kg) ND ND ND ND ND ND	RL (ug/kg) 5.74 5.74 5.74 17.2
SURROGATE PARAMETER Bromofluorobenzene	% RECOVERY 102	QC LIMIT 65-135

CLIENT: RCI PROJECT: Fort Baker / Project BATCH NO.: 96K145 SAMPLE ID: QC-2 CONTROL NO.: K145-21 % MOISTURE: 12.1	96-12 DATE RECE	SOIL
PARAMETERSBenzene Toluene Ethylbenzene Total Xylenes	RESULTS (ug/kg) ND ND ND ND ND ND	RL (ug/kg) 5.69 5.69 5.69 17.1
SURROGATE PARAMETER Bromofluorobenzene	% RECOVERY 100	QC LIMIT 65-135

X ,	CLIENT: PROJECT: BATCH NO.: SAMPLE ID: CONTROL NO.: % MOISTURE:	RCI Fort Baker 96K145 MBLK1S VAL037B NA	/	Project	96-12	DATE RECE:	IVED: ACTED: YZED:	====== NA NA NA 12/03/96 SOIL 1
							======	======
	PARAMETERS					SULTS J/kg)	(ug/	RL kg)
	Benzene Toluene Ethylbenzene Total Xylenes	5				ND ND ND ND ND		5 5 5 15
	SURROGATE PAR	RAMETER			% RE	COVERY	OC L	IMIT
							~ ~ ~	
	Bromofluorobe	enzene			1	.02	65-	135
	==========	=======================================	===	=======	======	=========	======	======
						· ·		

% .	CLIENT: PROJECT: BATCH NO.: SAMPLE ID: CONTROL NO.: MOISTURE:	RCI Fort Baker 96K145 MBLK2S VAL047B NA	/ Project	96-12	DATE COLLEC DATE RECEIV DATE EXTRAC DATE ANALYZ MATRIX: DILUTION FA	ED: NATED: NA	A
				RESUI	== LTS	RI	
	PARAMETERS			(ug/)		(ug/kg	
	Benzene Toluene Ethylbenzene Total Xylenes	5		NI NI NI NI	D D		5 5 5 5 15
	SURROGATE PAR	RAMETER		% REC	OVERY	OC LIM	
	Bromofluorobe	enzene		103		65-13	
	=========	========	=======	=======	=======================================	======	=====

EMAX QUALITY CONTROL DATA MS/MSD ANALYSIS

CLIENT:

RCI

PROJECT:

Fort Baker / Project 96-12

`OD:

EPA 5030A/8020A

.IX:

SOIL

% MOISTURE:

25.3

BATCH NO.: SAMPLE ID: 96K145

PL-3

CONTROL NO.:

K145-05

DATE RECEIVED: 11/29/96

DATE EXTRACTED: NA

DATE ANALYZED: 12/03/96

ACCESSION:

96K145

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD %	QC LIMIT	RPD LIMIT
Benzene	ND	334.67	322.10	96	334.67	308.89	92	4	65-135	40
Toluene	ND	334.67	322.60	96	334.67	308.29	92	5	65 - 135	40
Ethylbenzene	ND	334.67	317.89	95	334.67	308.10	92	3	65-135	40
Total Xylenes	ND	1004.02	947.76	94	1004.02	921.81	92	3	65 - 135	40

· · · · · · · · · · · · · · · · · · ·	SPIKE AMT	MS RSLT	MS	SPIKE AMT	MSD RSLT	MSD	QC LIMIT
SURROGATE PARAMETER	(ug/kg)	(ug/kg)	% REC	(ug/kg)	(ug/kg)	% REC	%
Bromofluorobenzene	334.67	356.92	107	334.67	340.44	102	65 - 135

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EMAX QUALITY CONTROL DATA MS/MSD ANALYSIS

CLIENT:

RCI

PROJECT:

Fort Baker / Project 96-12

'OD:

EPA 5030A/8020A

RIX:

SOIL

% MOISTURE:

11.7

BATCH NO.: SAMPLE ID: 96K145

SP-6

CONTROL NO.:

K145-19

DATE RECEIVED: 11/29/96

RPD LIMIT

%

DATE EXTRACTED: NA

DATE ANALYZED: 12/04/96

ACCESSION:	96K145								
PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD %	QC LIMIT %

Benzene ND 283.13 281.44 99 283.13 275.97 65-135 40 Toluene 283.13 ND 283.13 282.66 100 274.78 97 3 65 - 135 40 Ethylbenzene ND 283.13 281.08 99 283.13 272.37 96 3 65-135 40 847.28 849.38 Total Xylenes ND 100 849.38 825.04 97 65-135

SPIKE AMT MS RSLT MS SPIKE AMT MSD RSLT MSD QC LIMIT % REC

SURROGATE PARAMETER (ug/kg) (ug/kg) (ug/kg) (ug/kg) % REC Bromofluorobenzene 283.13 266.22 94 283.13 291.19 103 65-135

EMAX QUALITY CONTROL DATA LCS/LCD ANALYSIS

CLIENT:

RCI

PROJECT:

Fort Baker / Project 96-12

OD:

EPA 5030A/8020A

:XIX:

SOIL

% MOISTURE:

NA

BATCH NO.:

96K145

SAMPLE ID: CONTROL NO.: LCS1S/LCS1SD VAL037L/C DATE RECEIVED: NA

DATE EXTRACTED: NA

DATE ANALYZED: 12/03/96

ACCESSION:

96K145

	BLNK RSLT	SPIKE AMT	BS RSLT	BS	SPIKE AMT	BSD RSLT	BSD	RPD	QC LIMIT	RPD LIMIT
PARAMETER	(ug/kg)	(ug/kg)	(ug/kg)	% REC	(ug/kg)	(ug/kg)	% REC	%	%	%
Benzene	ND	250.00	253.71	101	250.00	250.85	100	1	70-125	40
oluene .	ND	250.00	251.74	101	250.00	248.88	100	1	70-125	40
thylbenzene	ND	250.00	254.60	102	250.00	251.48	101	- 1	70-125	40
otal Xylenes	ND	750.00	746.49	100	750.00	737.37	98	1	70-125	40

	=======================================		=========	==========		=======================================	
SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT %
Bromofluorobenzene	250.00	273.22	109	250.00	274.42	110	65-135

EMAX QUALITY CONTROL DATA LCS/LCD ANALYSIS

CLIENT:

RCI

PROJECT:

Fort Baker / Project 96-12

CC:

EPA 5030A/8020A

κIX:

SOIL

% MOISTURE:

NA

BATCH NO.: SAMPLE ID:

96K145

LCS2S/LCS2SD

CONTROL NO.:

Bromofluorobenzene

VAL047L/C

DATE RECEIVED: NA

DATE EXTRACTED: NA

DATE ANALYZED: 12/04/96

ACCESSION:

96K145

SURROGATE PARAMETER	SPIKE AM (ug/kg)		RSLT /kg)	BS % REC	SPIKE A		RSLT g/kg)	BSD % REC	QC LIN %	1 IT
=======================================		========	========	========	========	========	.=======		.=========	=========
Total Xylenes	ND	750.00	710.34	95	750.00	752.48	100	6	70-125	40
Ethylbenzene	ND	250.00	229.66	92	250.00	245.60	98	7	70-125	40
Toluene	ND	250.00	232.61	93	250.00	247.57	99	6	70-125	40
Benzene	ND	250.00	232.60	93	250.00	248.15	99	6	70-125	40
FARAPLICK			(49/19/	/0 KEC	(ug/kg)	(ug/kg)	% REC	% 	% 	<u>%</u>
PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % DEC	RPD °	QC LIMIT	RPD LIMIT

250.00 252.13 101 250.00 259.67 104 65-135

Sample Table

Vial Num.	Sample Name	Sample Amount	Multiplier	ISTD Amount
1 2 3 4 5 6 7	VAL037IB DCC1 8020A VAL037B VAL037L VAL037C			
6 7 3 9 10 11	K145-04 1.0gm S K145-05 1.0gm S K145-05M 1.0gm S K145-05S 1.0gm S K145-06 1.0gm S K145-07 1.0gm S			
12 13 14 15	K145-08 1.0gm S DCC2 8020A K145-09 1.0gm S K145-02 5 uL S K145-01 5 uL S			
17 18 21 22	BLK K145-03 5 uL S K145-10 1.0gm S K145-11 1.0gm S K145-12 1.0gm S K145-13 1.0gm S			
23 24 25 26 27 28	K145-14 1.0gm S DCC3 8020A K145-15 1.0gm S K145-16 1.0gm S K145-17 1.0gm S DCC4 8020A			
29 30 31 32 33	VAL047B VAL047L VAL047C K145-1S 1.0gm S K145-19 1.0gm S			
34 35 36 37 38 39	K145-19M 1.0gm S K145-19S 1.0gm S K145-20 1.0gm S K145-21 1.0gm S L008-07 5 mL W DCC5 S020A			
40 41 42 43 44 46 47	L008-01 10 uL S L008-02 10 uL S L008-03 25 uL S L008-04 1.0gm S L008-05 10 uL S L008-06 1.0gm S L009-03 1.0gm S L009-02 1.0gm S			
48 49	L009-01 5 mL W DCC6 8020A			

8020A QC RESULT

10.00	. 6.6.				
15:30	10:37	3:15	22:32	16:09	Analysis Time
4-Dec-96	4-Dec-96	4-Dec-96	3-Dec-96	3-Dec-96	Analysis Date
VAL047	VAL037	VAL037	VAL037	VAL037	Analytical Batch
039R0101	028R0101	024R0101	013R0101	002R0101	Filename(L03-)
DCC5	DCC4	DCC3	DCC2	DCC1	QC SAMPLE

	Reviewed By	15:39	10:37	3:15	32
	Analyzed By	4-Dec-96	4-Dec-96	4-Dec-96	ec-96
S16C-01-68-01	Standard ID	VAL047	VAL037	VAL037	L037
BK06	Calibration Ref.	039R0101	028R0101	024R0101	२०१०१
96K145, 96L008	Accession:	DCC5	DCC4	DCC3	002

Comments:

BFB

5

50.85

102%

54.48

109%

53.82

108%

47.74

95%

53.84

108%

m,p,o-Xylene

150

128.24

85%

138.00

92%

149.92

100%

142.77

95%

157.08

105%

Ethylbenzene

8

43.59

87%

47.22

94%

51.22

102%

46.96

94%

52.85

106%

Toluene

8

43.19

86%

46.73

93%

50.88

102%

47.28

95%

52.42

105%

Benzene

ន

43.53

87%

47.27

95%

51.63

103%

47.72

95%

53.11

106%

ANALYTE

Found Value Recovery (ug/L) (%)

Found Value (ug/L)

Recovery (%)

Found Value (ug/L)

Recovery (%)

Found Value (ug/L)

Recovery (%)

Found Value Recovery (ug/L) (%)

DCC5

DCC4

DCC3

DCC2

True Value (ug/L)

VOLATILE ORGANIC ANALYSIS

INITIAL CALIBRATION

METHOD:

BK06.MTH (8020A)

Initial Calibration Date:

6-Nov-96

							T1
CONCENTRATION, ug/L	2	10		100	200	Relative	CALIBRATION
Data Filename (K06-)	001R0101	002R0101	003R0101	004R0101	005R0101	Standard	FACTOR
Analysis Time	17:03	17:28	17:53	18:19	18: 44	Deviation	(1/AVE. RF)
	RUN1	RUN2	RUN3	RUN4	RUN5	(%)	
Meth-Tert-Butyl Ether	3.2245E+04	3.1211E+04	2.9744E+04	3.0814E+04	3.0949E+04	3%	3.2255E-05
Benzene	9.3726E+04	9.1528E+04	8.7535E+04	9.2949E+04	8.7955E+04	3%	1.0937E-05
Toluene	8.7552E+04	8.4346E+04	8.0622E+04	8.5364E+04	8.1505E+04	3%	1.1838E-05
Chlorobenzene	8.4660E+04	8.1537E+04	7.7675E+04	8.3233E+04	7.9589E+04	3%	1.2228E-05
Ethylbenzene	7.7866E+04	7.5335E+04	7.0879E+04	7.4755E+04	7.1153E+04	3%	1.3385E-05
m.p-Xylene	9.1880E+04	8.9245E+04	8.3364E+04	8.7332E+04	8.1946E+04	4%	1.1369E-05
o-Xylene	7.3451E+04	7.2457E+04	6.9517E+04	7.4303E+04	7.1206E+04	2%	1.3806E-05
1,3-Dichlorobenzene	8.4104E+04	6.8411E+04	6.6613E+04	7.2236E+04	6.9414E+04	9%	1.3729E-05
1,4-Dichlorobenzene	8.1732E+04	7.5563E+04	7.3559E+04	7.9301E+04	7.6649E+04	4%	1.2897E-05
1,2-Dichlorobenzene	6.0360E+04	5.3425E+04	5.3438E+04	5.7455E+04	5.6623E+04	5%	1.7803E-05
Surrogate Parameter Bromofluorobenzene	6.0171E+04	6.1942E+04	6.4938E+04	6.7777E+04	6.5231E+04	5%	1.5697E-05
CONCENTRATION(BFB),	30	40	50	80	100		

ANALYTE	BFB	ICAL	CHK.STD.
Intermediate Standard	S16C-01-64-01	S16C-01-64-02	S16C-01-63-02
Concentration (ppm)	50	50	50
Source	RESTEK	ULTRA	ACCU

Checked By: WTN -44 (18/96

LABORATORY REPORT FOR

RCI

FORT BAKER / PROJECT 96-12

EPA 3050A/6010A TOTAL LEAD BY TRACE ICP

SDG#: 96K145

DECEMBER 13, 1996

CASE NARRATIVE

CLIENT:

RCI

PROJECT:

FORT BAKER / PROJECT 96-12

SDG:

96K145

EPA 3050A/6010A TOTAL LEAD BY TRACE

Twenty-one (21) soil samples were received on 11/29/96 for total lead by trace ICP in accordance with USEPA SW846.

1. Holding Time

Analytical holding time was met.

2. Method Blank

All preparation blanks were free of contamination.

3. Matrix Spike/Matrix Spike Duplicate

All recoveries and RPD were within the QC limits.

4. Laboratory Control Sample/Laboratory Control Sample Duplicate

Found values of all elements in the lab control samples were within control limits.

5. Sample Analysis

All sample analyses were done within QC requirements.

EPA METHOD 3050A/6010A TOTAL LEAD BY TRACE ICP

11/27/96 11/29/96 12/04/96 CLIENT: RCI DATE COLLECTED: PROJECT: Fort Baker / Project 96-12 DATE RECEIVED: 96K145 BATCH NO.: DATE EXTRACTED: MATRIX: SOIL DATE ANALYZED: 12/10/96

SAMPLE ID	CONTROL NO	RESULT (mg/kg)	DL MOIST FACTOR (%)	RL (mg/kg)
T1-N T1-S PL-1 PL-2 PL-3 PL-4 PL-5 PL-6 PL-7 PL-8 PL-9 PL-10 QC-1 SP-1 SP-2 SP-2 SP-3 SP-4 SP-5 SP-6 SP-7 QC-2 MBLK1S MBLK1S MBLK3S	K145-01 K145-02 K145-03 K145-04* K145-05 K145-06 K145-07 K145-08 K145-09 K145-10 K145-11 K145-12 K145-13 K145-14 K145-15 K145-16 K145-16 K145-17 K145-18 K145-19 K145-20 K145-21** IPL004SB IPL010SB*	ND ND 14.8 ND ND ND 18.5 51.3 ND 15.3 196 865 19.3 32.5 13.6 ND ND ND ND ND 15.2 ND ND ND 15.3	1 17.4 1 18.8 1 19.5 1 14.0 1 25.3 1 25.0 1 13.6 1 18.5 1 17.3 1 18.3 1 20.4 1 16.8 1 16.8 1 16.1 1 16.8 1 12.5 1 11.7 1 12.9 1 12.9 1 NA 1 NA	12.1 12.3 12.4 11.6 13.4 13.3 11.6 12.3 12.1 12.2 12.6 12 12.1 12.2 12.3 11.9 11.3 11.4 11.3 11.5 11.4

Reporting Limit RL:

NOTE:

- K145-21 and IPL005SB were analyzed on 12/05/96. - K145-04 and IPL010SB were extracted and analyzed on 12/13/96.

EMAX QUALITY CONTROL DATA LCS/LCD ANALYSIS

CLIENT:

RCI

PROJECT:

Fort Baker / Project 96-12

D:

EPA 3050A/6010A

M...KIX:

SOIL

% MOISTURE:

NA

BATCH NO.:

96K145

SAMPLE ID: CONTROL NO.: LCS2S/LCS2SD

LCS

IPL005SL/C

DATE RECEIVED: NA

DATE EXTRACTED: 12/04/96

DATE ANALYZED: 12/05/96

ACCESSION:

96K145

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD %	QC LIMIT	RPD LIMIT %
Lead	ND	100.00	86.80	87	100.00	78.80	79	10	75-125	20

EMAX QUALITY CONTROL DATA LCS/LCD ANALYSIS

CLIENT:

RCI

PrimaricT:

Fort Baker / Project 96-12

ð:

EPA 3050A/6010A

MATRIX:

% MOISTURE:

NA _______

BATCH NO.:

96K145

SAMPLE ID: CONTROL NO.: LCS3S/LCS3SD IPL010SL/C

DATE RECEIVED: NA

DATE EXTRACTED: 12/13/96

DATE ANALYZED: 12/13/96

ACCESSION:

96K145

PARAMETER	BLNK RSLT (mg/kg)	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	RPD %	QC LIMIT	RPD LIMIT %
Lead	ND	100.00	89.70	90	100.00	89.50	90	0	75 - 125	20

EMAX QUALITY CONTROL DATA MS ANALYSIS

CLIENT:

RCI

OJECT:

Fort Baker / Project 96-12

'HOD:

EPA 3050A/6010A

MATRIX:

SOIL

% MOISTURE:

16.8

BATCH NO.:

96K145

PL-2K145-04

SAMPLE ID: CONTROL NO.:

DATE RECEIVED: 11/29/96 DATE EXTRACTED: 12/13/96 DATE ANALYZED: 12/13/96

ACCESSION:

96K145

PARAMETER

SMPL RSLT SPIKE AMT (mg/kg)

(mg/kg)

MS RSLT (mg/kg)

MS QC LIMIT % REC (응)

76

_____ Lead

120.00

91.50

75-125

EMAX QUALITY CONTROL DATA MS ANALYSIS

CLIENT:

RCI

PROJECT:

Fort Baker / Project 96-12

HOD:

EPA 3050A/6010A

Nurl'RIX:

SOIL

% MOISTURE:

16.8

BATCH NO.: SAMPLE ID:

96K145 OC-1

DATE RECEIVED:

11/29/96

CONTROL NO.:

K145-13

DATE EXTRACTED: 12/04/96 DATE ANALYZED: 12/10/96

ACCESSION:

96K145

PARAMETER _____

Lead

SMPL RSLT (mg/kg)

SPIKE AMT (mg/kg)

MS RSLT (mg/kg)

MS QC LIMIT % REC (응)

19.30 120.00 115.00 80 75-125

EMAX QUALITY CONTROL DATA DUPLICATE ANALYSIS

CLIENT:

RCI

JECT:

Fort Baker / Project 96-12 EPA 3050A/6010A

: COE.

MATRIX:

SOIL

% MOISTURE: _______

16.8

BATCH NO.:

96K145

SAMPLE ID: CONTROL NO.: PL-2

DATE RECEIVED:

11/29/96 12/13/96 12/13/96

K145-04

DATE EXTRACTED: DATE ANALYZED:

ACCESSION:

96K145

PARAMETER

SAMPLE (mg/kg) DUP. SAMPLE (mg/kg)

RPD (응)

RPD LIMIT (응)

Lead

ND

ND

0

20

EMAX QUALITY CONTROL DATA DUPLICATE ANALYSIS

CLIENT:

RCI

າJECT :

Fort Baker / Project 96-12 EPA 3050A/6010A

HOD:

MATRIX:

SOIL

% MOISTURE:

16.8

BATCH NO.: SAMPLE ID:

CONTROL NO.:

96K145

PL-3

DATE RECEIVED: 11/29/96 DATE EXTRACTED: 12/13/96 DATE ANALYZED: 12/13/96

K145-05

ACCESSION:

96K145

PARAMETER

SAMPLE*

DUP. SAMPLE

RPD

RPD LIMIT

(mg/kg)

(mg/kg)

(응)

(응)

Lead

ND

ND

0

Sample was analyzed on 12/10/96

EMAX QUALITY CONTROL DATA LCS/LCD ANALYSIS

CLIENT:

RCI

FCT:

Fort Baker / Project 96-12

D:

EPA 3050A/6010A

MAIRIX:

SOIL

% MOISTURE:

NA

BATCH NO.:

96K145

SAMPLE ID: LCS1S/LCS1SD CONTROL NO.: IPL004SL/C

DATE RECEIVED: NA

DATE EXTRACTED: 12/04/96

DATE ANALYZED: 12/10/96

ACCESSION:

96K145

BLNK RSLT SPIKE AMT BS RSLT

(mg/kg) (mg/kg) (mg/kg)

BS SPIKE AMT BSD RSLT BSD
% REC (mg/kg) (mg/kg) % REC

RPD QC LIMIT RPD LIMIT % % %

86.40 86 1 75-125

PARAMETER ------Lead

ND 100.00 86.90 87 100.00

20

ANALYSIS RUN LOG FOR ICP

	tical Batch 12/20 10 Me			6010	200.7		Во	ok # T-A	08-001	l Page #	102
Mthod	File MULT Autosample	er Ta	ble	Startin	g Date	12/10 actime	Er	iding Date	12.10.5	د Time	:
Seq.	Lab Sample ID	DF	Analysis	Matrix	Seq.	Lab Sample ID	DF	Analysis	Matrix	Std.	ID
1	1cv HIGHI		Pb		41	1 Ptrozz SB		Pb		S1	8018-06-14-01
2	1CV HIGHY				42	SC				S2	-02
3	100				43	SC				S3	- 03
4	106	<u> </u>			44	K118-04				S4	801 B-06-16+2
5	1CSABI	<u> </u>			45	70				S5	03
6	ccil				46	υ ሬ				S6	oy
7	CCB,				47	06 M				ICV High 1	Sec 18-06-14-8
8	1PL004 SB				48		5¥			ICV High 2	10-04
9	SC SC	<u> </u>			49	140 ABF COUT				ICV	SOI C-06-31-02
10		<u> </u>			50	cour con				ccv	50113-06-10-07
11	K145-01				51	CERTIPLOUGH	B			ICSA	801c-06-34-63
12	- 07				52	WL				ICSAB	يرده
13	- 03		•		53	w				CRI	
14	- 04				54	1022-02					
15	- 07				55	1 CS ABF				Commen	ts:
16	- 06				56	c W6					
17	-01				57	cersi					
18	CCV,				58	IPKO34WB					
19	CCBy				59	WL				-	
20	K145-08				60	WZ					
21	-09				61	K110-01				C-1-1-1	
22	<u> </u>				62	1 CO ARIZ				***************************************	
23	- 11				63	CW7				Company of the same of the sam	
24					64	CLRT					
25	<u>— 13</u>				65	<u> </u>				-	
26	- 130				66						
27	- 13H				67	(
28	$\frac{-131}{1}$	5			68						
29	CCV3	<u>:</u>			69	\				-	
30	Cobs				70	\					
31	K145- 14				71	<u> </u>					
32	-15				72						
33	- 16				73	: :					
34	- 17				74						
35	- 1.8				75	· :					
36	<u> </u>				76						010.
37	K145 - 20				77						Analyzed By: NB M
38	VOCV + ICRA	B#	-		78		-				,
39	1000				79					•	Checked By:
40	<u>('C'64</u>				80					•	Date:
E	MAXANALYTICAL L	ABO	RATORIES	INC.,	30 Mc	ple Ave., Torrance, CA 9	050	3 TEL: (3	10) 618	-8889 FA)	X: (310) 618-0818

	#	Sample Name	·	File	Method	Date	Time	OplD	Type	Mode
	1 2 3 4 5 6	\$0 \$1 \$2 \$3 \$4 \$5		I31L010 I31L010 I31L010 I31L010 I31L010 I31L010	MULTI MULTI MULTI MULTI MULTI MULTI	12/10/96 12/10/96 12/10/96 12/10/96 12/10/96 12/10/96	11:22 11:26 11:30 11:34 11:38 11:41		X X X X X	IR IR IR IR IR
	7 8 9 10 11 12	S6 ICV HIGH1 ICV HIGH2 ICV ICB ICSABI		I31L010 I31L010 I31L010 I31L010 I31L010 I31L010	MULTI MULTI MULTI MULTI MULTI MULTI	12/10/96 12/10/96 12/10/96 12/10/96 12/10/96 12/10/96	11:44 11:50 11:55 12:01 12:06 12:10	TV TV TV TV	X S S S S S S S	IR CONC CONC CONC CONC CONC
	13 14 15 16	CCV1 CCB1 IPL004SB IPL004SL IPL004SC K145-01		I31L010 I31L010 I31L010 I31L010 I31L010 I31L010	MULTI MULTI MULTI MULTI MULTI MULTI	12/10/96 12/10/96 12/10/96 12/10/96 12/10/96 12/10/96	12:38 12:44 12:51 12:55 12:59 13:05	TV TV TV TV TV	0 0 0 0 0 0 0 0 0 0	CONC CONC CONC CONC CONC
in the second	19 20 21 22 23	K145-02 K145-03 K145-04 K145-05 K145-06 K145-07		I31L010 I31L010 I31L010 I31L010 I31L010 I31L010	MULTI MULTI MULTI MULTI MULTI MULTI	12/10/96 12/10/96 12/10/96 12/10/96 12/10/96 12/10/96	13:08 13:12 13:16 13:20 13:24 13:28	TV TV TV TV		CONC CONC CONC CONC CONC
	25 26 27 28	CCV2 CCB2 K145-08 K145-09 K145-10 K145-11		I31L010 I31L010 I31L010 I31L010 I31L010 I31L010	MULTI MULTI MULTI MULTI MULTI MULTI	12/10/98 12/10/98 12/10/98 12/10/98 12/10/96 12/10/98	13:39 13:45 13:49 13:53 13:57 14:01	TV TV TV TV TV	က္လက္လက္လက္လက္	CONC CONC CONC CONC CONC
	31 32 33 34 35	K145-12 K145-13 K145-13D K145-13M K145-13T		I31L010 I31L010 I31L010 I31L010 I31L010	MULTI MULTI MULTI MULTI MULTI	12/10/96 12/10/96 12/10/96 12/10/96 12/10/96 12/10/96	14:05 14:09	TV TV TV TV	0 0 0 0 0 0 0 0	CONC CONC CONC CONC CONC CONC
	37 38 39 40 41	CCV3 CCB3 K145-14 K145-15 K145-16 K145-17		I31L010 I31L010 I31L010 I31L010 I31L010 I31L010	MULTI MULTI MULTI MULTI MULTI MULTI	12/10/96 12/10/96 12/10/96 12/10/96 12/10/96	14:40 14:44 14:48 14:51 14:55	TV TV TV TV	3 5 6 6 5 5	CONC CONC CONC CONC CONC
	43 44 45 46 47	K145-18 K145-19 K145-20 ICSABF CCV4 CCB4		I31L010 I31L010 I31L010 I31L010 I31L010	MULTI MULTI MULTI MULTI MULTI MULTI	12/10/96 12/10/96 12/10/96 12/10/96 12/10/96 12/10/96	14:59 15:03 15:07 15:13 15:24	TV TV TV TV	9999999	CONC CONC CONC CONC CONC
	50 51 52	IPK022SB IPK022SL IPK022SC K118-04 K118-05 K118-06		I31L010 I31L010 I31L010 I31L010 I31L010 I31L010	MULTI MULTI MULTI MULTI MULTI MULTI MULTI	12/10/96 12/10/96 12/10/96 12/10/96 12/10/96 12/10/96	16:02 16:26 16:30 16:36 16:40 16:44	TV TV TV	\$ \$ \$ \$ \$ \$ \$ \$	CONC CONC CONC CONC CONC

70 CCV7 71 CCB7

	# 	Sample Name	2203/1	2203/2	1960/1	1960/2	As	'r]
	23456	\$0 \$1 \$2 \$3 \$4 \$5	.22188 42.5048 86.7796 121.878	64.1819	14192 7.09995 15.0505 21.6822		8.25837 17.2214	16541 11.9125 25.1524 36.0525
20032000	89011234567890 1112341567890 1222222222222222222222222222222222222	S6 ICV HIGH1 ICV HIGH2 ICV ICB ICSABI CCV1 CCB1 IPL004SB IPL004SC K145-01 K145-02 K145-03 K145-04 K145-05 K145-06 K145-07 CCV2 CCB2 K145-08 K145-09 K145-10 K145-11	-6.998 444.81536 699.9 986.5 3.1165588 82530. 2086.2 2086.2 2086.0 6560. 12630. 1038.1 9555 39669. 11040. 152600.	.1679 485.1 -2.467 949.9 10542.451 -251.7 89050. 89050. 5656. 6979. 13300. 2083. 4187. 10350. 17660. 17660. 10514188 42830. 7873. 13210. 157900.	3.615 468.0 7.659 770.4 971.6 11.52 1488. 162000. -7262. -8205. -8205. -7828. -10030. -10030. -10030. -1028. -3307. -9616. -8684. -7084.	514.1 11.92 852.3 1020. 9.823 166.9 184600. 183805. -4031. -4616. -3325. -4838. -4838. -4838. -4838. -4914. 1013	.9412 520.1 -2.304 903.6 989.95 -146.3 89520.5 -985.75 -455.8 -505.8 -240.6 129.4 1004. 10	2.75.7 48.42.0 5.442.0 5.442.0 5.442.0 9.493.0 17.833.0 17.833.0 17.833.0 18.8575.0 18.8575.0 18.833.0
	233456789012 3333333444466789012 5555	K145-12 K145-13D K145-13M K145-13T CCV3 CCB3 K145-14 K145-15 K145-16 K145-17 K145-18 K145-19 K145-19 K145-20 ICSABF CCV4 CCB4 IPK022SB IPK022SL IPK022SC K118-04 K118-06	702900. 13650. 21670. 89260. 16500. 989.4 3.882 23300. 8874. 3481. 3898. 6059. 10640. 6714. 709.2 924.2 -3.201 177.6 80950. 8043027112009.	732700. 17260. 26330. 98310. 18570. 10271.027. 28070. 12640. 7425. 8118. 9562. 14310. 9572. 925.7 982.7 .0079 -66.51 8763021051639. 692.0	-1416080487091. 1201004827. 979.9 10.657140836887647817814887266793. 772.0 939.6 1.491661.0 158000. 155100. 139.1 -270.0 370.8	-2694. -2237. 139300. -1405. 979.8 12.51 -2204. -1905. -3868. -2989. -2989. -2980. -3404. 829.9 964.2 11.62 1065.	263.5 605.9 72280. -938.3 990.1 1.630 268.3 163.2 -514.3 -457.4 -409.5 134.9 -277.3 882.1 961.7 -277.3 882.1 961.7 -27440.	177500. 441.3 6103.9

Ar	nalysis Report	Avera	ges	V	Wed 12-11-	-96 01:47	:14 PM	page 4.
F 	Sample Name	2	203/1	2203/2	1960/1	1960/2	As	rp a L d.
	54 K118-06M 55 K118-06T 56 CCV5 57 CCB5 58 IPL006WE 59 IPL006WC 50 IPL006WC 51 L022-02 52 ICSABF 53 CCV6 54 CCB6 55 IPK034WE 56 IPK034WE 57 IPK034WC 58 K110-01 59 ICSABF 70 CCV7 71 CCB7		-3603. 919.8 3.086 2.206 829.5 835.2 -3.221 691.3 891.1 1.413 1.067 786.7 789.9 1.768 724.4 907.4	988.9 -1.669 6846 885.3 894.6 -2.098 915.2 975.2 .8526 -1.549 883.3 894.0 9057 913.2	-4787. 956.2 3.490 -3.323 1743. 1773. 46.44 787.4 936.0 3399 -8.340 1654. 1655. 16.20 832.6 930.4	4014. 982.9 9.307 7.415 1854. 1893. 51.21 831.2 977.1 9.925 9.004 1825. 1867. 18.75 852.6 982.6	-432.7 962.7 .9996 -2.334 911.0 919.7 6.555 863.6 955.9 .6693 4119 919.6 908.9 3.192 875.8 954.0	1.654 .0021 .17818.2 .1818.2 .1819.2
‡	Sample Name	A	1	Ca	Fe	Mg	⁰ Cd	Cu.
	1 S0 2 S1 3 S2 4 S3 5 S4 6 S5 7 S6 8 ICV HIGH1 9 ICV HIGH2 10 ICV 11 ICB 12 ICSABI 13 CCV1 14 CCB1 15 IPL004SC 15 IPL004SC 16 IPL004SC 17 IPL004SC 18 K145-01 19 K145-02 20 K145-03 21 K145-05 22 K145-06 23 K145-06 24 K145-07 25 CCV2 26 CCB2 27 K145-09 28 K145-10 30 K145-11 31 K145-12 32 K145-13		14590. 4944. 26.44 437800. 9573. 30.77 2080. 931400. 952200. 19e6 19e6 15e6 19e6 18e6 18e6 9592.	36.083 73.1709 102.916 -16.53 L142400. 41.69 422500. 95430. 95540. 95	.7931 1.5382 2.27688 175.1 14190. -1380. 91789. 9604. 9604. 9606 42ee6642e6642e6642e6642e6642e6642e6642	60.5017 94.23 143600. 47.53 48400. 47.53 453000. 47.53 453210. 500.8 467128 47026 11283 47026 11283 47026 11283 10286 11283 10286 11283 10286 11283 10286 11283 10286 11283 10286 11283 10286 10286 10386	501.8 .2027 893.6 970.0 .5826 90400. 90240. 153.7 185.0 161.4 149.5 107.8 168.3 195.1 977.8 .1694 242.2 242.2 241.2 87.5	084490. 884900. 884900. 4854800. 484890. 484890. 484890. 91384800. 9138490. 271820. 12560000.

aut thinks	#	Sample Name	Al	Ca	Fe	Mg	Cd ·	Cu
The state of the s								
grants a	33333344444444455555555556666666667890	CCV5 CCB5 IPL008WB IPL008WL IPL008WC L022-02 ICSABF CCV6 CCB6 IPK034WB IPK034WL IPK034WC K110-01	906900. 162500. 168500. 754800. 1109e3 888400. 950.41 17.23 9187. 9346. 43.46 4225. 943.95 24.94 92185. 9185. 9185.	93330. 109.7 14270. 4793e3 4809e3 162500. 1684800. 1684800. 1109e3 88400. 494.880. 494.880. 435300. 435300. 435300. 435300. 435300. 435300. 435300. 435300. 435300. 435300. 435300. 435300. 435300. 435300. 435300. 435300. 435300.	85.75 48e66 52e66448e664390000. 284e664390000. 28141. 281	232.8 8233e3 716e6 10e6 9477e3 914e6 00. 9477e3 914e6 00. 932e3 4456 00. 10e6 9477e3 94472e3 44526 00. 10e6 9477e3 44526 00. 10e6 9477e3 44526 00. 10e6 9477e3 44526 00. 10e6 9477e3 45384ee3 45384ee3 46384ee3 464810 47240 47	84030.5551297905323 97.0629790532300.5897.5687 1568729790532300.5899 1568729790532300 1668729790532300 16687 1	
	#	Sample Name	Mn	V	Zn	Fb	Se	
processor.	2 3 4 5 6	S0 S1 S2 S3 S4 S5	.01049 17.700: 35.926: 50.416:	2 19.4593 5 39.6352	6.35432 13.1724			
	8 9 10	S6 B ICV HIGH1 B ICV HIGH2 D ICV L ICB	L1352. .4143 L434.1 .1938	L1354. 3.322 452.5 .0994	1452. 24.09 496.5 -1.469	1449. -2.218 471.7 -1.696	12.02 /	015

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	#	Sample Name	Mn	Υ	Zn	Pb	Se	
	- 131456789012345678901234567890123 4444	ICSABI CCV1 CCB1 IPL004SB IPL004SC K145-01 K145-02 K145-03 K145-04 K145-05 K145-06 K145-07 CCV2 CCB2 K145-08 K145-10 K145-11 K145-12 K145-13 K145-13 K145-13T CCV3 CCB3 K145-14 K145-15 K145-16 K145-16 K145-17 K145-18 K145-19	L351.8 L852.3 .2366 -27.64 75990. 75000. 661500. 648600. 619800. 637700. 653200. 773700. 618300. 908.0 .3367 483800. 7435900. 382200. 743300. 1616e3 822400. 911100. 825800. 913600. 1072e3 732600.	L387.7 L387.7 L385.3 .5242 -27.99 77120. 76000. 121100. 139200. 116800. 74770. 129700. 124700. 124700. 124700. 124700. 143500. 143500. 1436400. 136400. 1436400. 1436400. 1436400. 143700. 143700. 143800. 143900. 149700. 139200. 139200. 139200.	894.0 973.4 4.510.0 88970.8 89710.9 889710.9 92290.76510.46070.643320.9 969.730.764330.74710.74710.774260.8 89430.777920.74260.7300.774260.7300.774260.7300.774260.7300.730000.730000.730000.730000.730000.730000.730000.730000.730000.730000.730000.730000.730000.730000.730000.730000.730000.730000.7300000.730000.730000.7300000000	8631.68.1 8631.68.1 -168.0 -168.0 -168.0 -168.0 -168.0 -168.0 -168.0 -168.0 -10.0	825.0 1004. H10.39 H606.8 177100. 175600. -4702. -5421. -5779. -4824. -6257. 1018. -6257. 1018. -43959. -44702. -44702. -38941. -38944. 879.899. -4477. -4894. -5499. -44894.	
r comment	44567890123456789012 6666	K145-20 ICSABF CCV4 CCB4 IPK022SE IPK022SE IPK022SC K118-04 K118-05 K118-06 K118-06 K118-06T CCV5 CCB5 IPL006WL IPL006WC L022-02 ICSABF	768500. L340.2 L771.0 1.478 129.6 71730. 71660. 9298. 12100. 20540. 71380. 23830. L761.711940339 L720.5 L723.7 .9936 L314.7	122800. L368.4 L790.1 2.750 44.26 71470. 71800. 472.3 527.7 1110. 55410. 1418. L773.0 .3577 1.366 L712.7 L716.1 9.897 L340.0	75300. 872.3 937.5 .944.7 949.9 87270. 87020. 1092. 1328.8 .944.8 9653.8 944.8 944.8 -1.4.945 8894.8 -5.6	\$620. \$53.2 -1.78 852307. -14552307. -1762. 852307. -1762. 246.80. -1493. 965.81 965.81 864.9 -2781 8674.9 -240.6	-4533. 810.6 956.0 H8.250 490.3 168700. 169300. 306.2 130.8 -29.15 148000. 1083. 974.0 H7.370 3.839 1817. 1853. 49.62 816.6	01 ••
	64	CCV6 CCB6 IPK034WB	L697.2 1482 1907	L702.9 .3303 .6275	942.7 2.253 -6.381	947.2 1.039 6780	963.4 H6.507 3.229	016

Analys	is Report	Aver	ages		Wed 12-11	-96 01:47	:14 PM	page 7
# Sa	mple Name		Mn 	V 	Zn	Pb	Se	
67 IP	V7		L657.8 L648.4 .1481 L358.3 L762.0	L649.0 L636.8 22.52 L381.5 L766.7	893.0 888.0 3.202 865.5 929.8 2.253	851.1 859.3 0152 850.3 927.5 .0008	1768. 1797. 17.90 846.0 981.8 4.150	

Mthod	File Multi Autosample	er Ta	ble	Startin	g Date ≀?	~ 5 · 9 (Jime	En	ding Date	12.5.	96 Time	
Seq.	Lab Sample ID	DF	Analysis	,	Seq.	Lab Sample ID		Analysis		Std.	ID
1	ICV HIGHI		-		41	•		,		S1	5018.06.14
2	ICV HIGH 2		·		42					S2	3013.06.14
	ICV				43					S3	•
	ICB				44					S4	501B.0G.10.
	ICSABI				45					S5	301131 061 1011
	CCVI				46					S6	
	CCBI				47						501B.06.14.0
	IPLOO2WB				48						2018 · 0 G · 10.
9	WL				49						501C · O 6. 31.
10	WC				50					ccv	SOIB. OG. 10.
	K142 - 02				51					ICSA	5010.06.36
12	-02D				52					ICSAB	36.
13	-02M	n27	(+14)		53					CRI	20.
14	-05-02T	5X			54						
15	-07-05				55					Common	• <u>.</u>
	KHO-01-07				56					Commen	is.
	ICSABF KIIO-O	ı			57					- Dw W	IT Z31
	CEVI ICSABF				58		_				21 231
	CCBZ CCV2				59						
	IPLOOSSB CCB	2			60						
	IPLOO5 SB				61	· · · · · · · · · · · · · · · · · · ·					
22	s C				62		$\dashv \dashv$				
	K145-27 SC				63						
	ICSABF KHS-21				64		\dashv				
25	CCV3 ICSABE						$\dashv \dashv$				
	GCB3 CCV3				65 66		\dashv				
27	¿c. 83				67		+				
28	333			 -	68		\dashv				
29					69		+				
30		·			70		+				
31							+				
32					71		++				***************************************
33							+			***************************************	
34					73		$\dashv \dashv$			***************************************	
35					75		- -				
36					76		$\dashv \dashv$				
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39							\dashv			•	
40		-			79		-				Checked By: O 1 0

EMAXANALYTICAL LABORATORIES INC., 630 Maple Ave., Torrance, CA 90503 TEL: (310) 618-8889 FAX: (310) 618-0818

			-						
	Ħ	Sample Name	File	Method	Date	Time	OpID	Type	Mode
and the same of th	1234567891112314516781902122342562789031333	\$0 \$1 \$2 \$3 \$4 \$5 \$6 ICV HIGH1 ICV HIGH2 ICV ICB ICSABI CCV1 CCB1 IPL002WE IPL002WE K142-02D K142-02D K142-02D K142-02T K142-05 K142-07 ICSABF CCV2 IPL005SB IPL005SE IPL005SC IPL005SC K145-21 ICSADF ICSADF	I31L001	MULTI MULTI	12/05/96 12/05/96	20:53 20:57 21:04 21:08 21:14 21:18 21:23 21:23 21:33 21:41 21:55 21:55 22:09 22:13 22:26 22:37 22:26 22:37 22:46 22:54 23:11		N X X X X X X S S S S S S S S S S S S S	IR IR IR IR IR IR CONCCCONCCCONCCCONCCCONCCCONCCCONCCCON
	U -1								

	#	Sample Name	2203/1	2203/2	1960/1	1960/2	As	T1
	3 4 5	\$0 \$1 \$2 \$3 \$4 \$5 \$6	.66066 32.5187 66.1464 95.3133	.06746 19.5277 39.984 57.3533	27436 7.00049 15.6662 22.4678	.09595 4.95302 10.2828 15.3303	05747 8.42678 17.5142 24.6132	11894 8.47976 17.8291 25.2249
C S S S S S S S S S S S S S S S S S S S	8 9 0 1 1 2 3 4 4 5 6 7 8 9 0 1 2 2 2 2 2 2 2 2 2 2 2 2 3 3 3 3 3 3	ICV HIGH1 ICV HIGH2 ICV ICB ICSABI CCV1 CCB1 IPL002WB IPL002WL IPL002WC K142-02 K142-02D K142-02T K142-02T K142-07 ICSABF CCV2 CCB2 IPL005SB IPL005SC K145-21 ICSABF CCV3 CCB3 CCB3 CCB3	1474. -1.017 494.5 -2.317 876.4 948.0 -1.433 4.797 899.2 961.6 5.235 2.023 914.7 -7.136 4771 3.855 5880 933.5 967.4 58.16 651.6 89240. 80970. 113.0 932.8 971.4 -9.298	1456. -1.472 509.0 .5751 1012. 980.2 -2.394 3814 895.3 968.3 -2.852 .3605 905.8 -1.558 3.101 .3209 2921 1030. 958.7 123.9 -98.87 85640. 77720. 110.2 1006. 953.8 1.854	1474. 13.67 510.1 10.88 869.1 995.8 20.57 11.24 1789. 1924. 10.52 5.000 1811. 84.43 2.795 4.275 10.22 905.0 1020. 2024. 185.0 170100. 151300. -34.14 931.2 1026. 4.770	31.18 877.1 966.1	1467. 6.682 517.2 2.594 899.0 969.8 5.976 3.035 891.6 948.9 3.123 .3006 894.4 7.972 .5944 -1.258 L6.329 916.0 H966.9 532.9 L282.9 84550. 74840. L2.708 903.8 H958.5 7.917	1480. 2.077 489.7 4294 912.4 962.8 4.064 3707 1792. 1930. 2.479 9767 1819. 22.48 .5743 6018 L-1.146 920.1 H949.3 581.9 L130.1 176300. 156400. L22.88 918.4 H948.3 5802
	#	Sample Name	A1	Ca	Fe	Mg 	Cd	Cu
	2 3 4	S1 S2 S3	.72913				112.839 230.981	.41829 22.6647 45.3068 65.1609
	6 7 8 9 10 11 12 13 14	S5 S6 ICV HIGH1 ICV HIGH2 ICV ICB	-5.573 451000. 10090. 7.657	52.5417 74.5377 6846 144400. 49010. 15.05 434800. 98860. 23.89	1.16641 1.69665 141.1 14630. 4947. .2226 187100. 10080. 30.85	53.4273 76.7801 29.89 146300. 47280. 22.25 470400.	.6544 512.8 .0091 944.6 996.5 .1331	1.920 516.1 .3818 500.1 1022.

								10000
1	#	Sample Name	Al	Ca	Fe	Mg	Cd	Cu
	17 18 19 20 12 22 23 24 25 26 27 28 29 30 31 32 33	IPL002WL IPL002WC K142-02 K142-02D K142-02M K142-02T K142-05 K142-07 ICSABF CCV2 CCB2 IPL005SB IPL005SL IPL005SC K145-21 ICSABF CCV3 CCB3 CCB3	9485. -22.94 -31.77 8979. -45.99 56.17 31.26 L-28.39 H466600. H9935. -634.0 6186. 870200. 764800. L210600. H462800. H9879.	50070. -38.02 -61.61 47400. 198.1 48630. 42480. L29880. H445200. H98600. 5239. -7537. 4561e3 4140e3 L158100. H441900. H98060.	9443. 10130. 22.08 17.74 9617. 88.50 127.0 83.38 L11.68 H192700. H10020. 2204. 7026. 930700. 828300. H472500. H190500. H9967. 22.00	48890. 30.96 13.54 46250. 116.1 20550. 18030. L13190. H481300. H98640. 5709. 1838. 4421e3 3993e3 L108000. H477300. H97850.	.5374 2142 918.2 2.020 .5322 .0259 L.7527 962.6 H983.0 20.07 L-15.12 88340. 78890. L1.934 949.7 H974.2	1003. 1.400 .6872 952.0 7.621 2.407 1.999 L4.737 L519.5 H1021. 151.3 46.09 93630. 83040. 501.5 L516.4
	#	Sample Name	Mn 	V	Zn	Pb	Se	
	2 3 4 5 6	\$0 \$1 \$2 \$3 \$4 \$5	13.9485 28.2454		5.55372 11.2059			
	8 9 1 1 1 2 1 3 1 4 1 5 6 7 8 1 9 0 1 2 2 2 2 2 2 2 2 2 2 2 2 3 0 3 0 0 0 0 0	S6 ICV HIGH1 ICV HIGH2 ICV ICB ICSABI CCV1 CCB1 IPL002WL IPL002WC K142-02 K142-02D K142-02D K142-02T K142-05 K142-07 ICSABF CCV2 CCB2 IPL005SB IPL005SC K145-21 ICSABF W 145-2	1.076 499.3 .1033 442.3 959.6 .1390 0414 906.6 970.0 .3569 .1762 927.9 1.061 24.47 13.89 L3576 L465.9 H989.1 59.18 12.16	.3963 512.9 -1.147 463.2 994.0 7541 -1.561 919.2 983.0 3392 -1.070 941.2 -2.090 1.649 7461 L32.64 L487.9 H1026. 28.12 -125.3 93770.	973.5 3664 -4.011 888.1 938.7 -4.381 -5.120 889.2 5.558 -1.341 -1.200 L2.220 931.5 H958.6 18.81 -697.0 84370. 74940. L786.9	-1.321 504.23881 966.6 969.4 -2.074 1.343 896.6 966.01592 .9140 908.8 -3.415 1.909 1.498 L3907 997.9 H961.6 102.0 L151.0 86840. 78800. L111.1	14.68 509.8 H9.335 887.5 990.3 H12.47 H5.465 1783. 1936. 10.02 4.887	1 02

Ana	lysis Report	Averages		Thu 12-0!	5-96 11:32	:52 PM	page 4
#	Sample Name	Mn	V	Zn	Pb 	Se	
	CCV3 CCB3	L468.2 H996.5	L488.7 H1035.	919.3 H947.6	981.4 H959.6	L895.1 H986.1	
	CCB3	.3030	1.745	3.145	-1.860	-1.975	

ANALYSIS RUN LOG FOR ICP

		ch T3, L∪2 Method CLP □ 6010 ➡ 200.7 □						Book # T-A08-001 Page # 110					
Mthod File WUげ Autosampler Table Starting Date 12 - 13 stime							Ending Date 12-13. 1 Time						
Seq.	Lab Sample ID	DF	Analysis	Matrix	Seq.	Lab Sample ID	DF	Analysis	Matrix	Std.	ID		
1	10UH1GH				41	/				S1	5018.06.14.01		
2	100 TEU FILE	12			42					S2	.02		
3	1085				43					S3	.03		
4	ICSA)				44					S4	SUIB. 06.10.02		
5	1CDAB1				45					S5			
6	C CU)				46					S6	٠٥١		
7	c ch1				47					ICV High 1	501 B. 06. 14.03		
8	IPL010 SB				48					ICV High 2	10.0		
9					49	<u> </u>				ICV	5010.06.31.0		
10	SC				50					ccv	SUIB.06.10.09		
11	K145-04				51					ICSA	soic .06.36.0		
12	-04D				52					ICSAB	٠. ن		
13	OHM				53					CRI	NA		
14	041	54			54	/							
15	CWZ				55	/				Commen	its:		
16	CCBV				56	/				Em	VT I31		
17	K145-05				57	/							
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19	05M				59								
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21	1CSAF				61								
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EMAXANALYTICAL LABORATORIES INC., 630 Maple Ave., Torrance, CA 90503 TEL: (310) 618-8889 FAX. (310) 618-0818

Patrician .									
	ìĒ.	Sample Wame	911a	Method	Data .	Time	UPID	J. F.	Mode
-					AND ADD THE THE THE THE THE THE	Annual comments (comments or comments)			
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	3	32			12/13/98			Ž.	T.P.
	Z <u>L</u>	33	1311021	MULTI					IR
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	8	85	I31L021	MULTI	12/13/96	21:31		X ·	12
	. 7	S6	I31L021	MULTI	12/13/96	21:34		2.34	IR
	. 3	ICV HIGH1	I31L021	MULTI	12/13/98	21:41	ABC	3	COMC
	9	ICV HIGHS	I31L021	MULTI	12/13/98	21:48	ABC	ŝ	CONC
		ICV	I31L021	MULTI	12/13/98	21:51	ABO	3	CONC
		ĪČB	I31L021	MULTI	12/13/96	21:57	ABC	3	CONC
	12		I31L021	MULTI	12/13/96	22:01	AEC	ŝ	CONC
			1311021	MULTI	12/13/98	22:05	ABC	3	CONC
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		CCV1	I311021				abo 430-	tur Ta	CONC
		CCB1	I31L021	MULTI	12/13/98	22:18			
	16	TPL010SB	I311021	MULTI	12/13/96	22:20	ASC	ূ্	CONC
	17	IPL01USL	131L021	MULTI	12/13/96	22:24	ABC	5	CONC
	18	TPL010SC	I31L021	MULTI	12/13/98	22:28	АВC	S	CONC
	1.9		I31L021	MULTI	12/13/96	22:34	ABC	S	CONC
	20		TR411.021	সায় কাট	12/13/96	22:38	ASC"	<u> </u>	CONC
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		WI ASLANT	7911,001	WIT OF	12/13/96	22:47	33C	3	CONC
- Company	23		7945304	MOTET	12/13/98	22:53	ABC	2	COMC
			- A. W.A. H. A. G.A. - T. O.A. T. (A.O.A.	MULTI	12/13/68	22:55	450	2	COMC
	24		1311021	MULTI	12/13/98	23:03	ABC	2	CONC
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	-27		I31L021	MULTI	12/19/96	20:23			ID MEND MANAGEMEN
	28		1311001	MULTI	13/13/96	20:10	AEC	S	CONC
	29	ICSAF	I31L021	MULTI	12/13/96	20:21	, AB(I	3	CONC
	30		I3:L021	MULTI	12/13/96	23:25	ABC	G	CONC
		CCV3	[31L021	MULTI	12/12/98	22:31	ARC	S	CONC
		CCB3	IS1L021	MULTI	12/13/98	13:38	ABC	3	
	9 Q		ISTLOSI	MULTI	12/13/96	28:48	450	3	CONC
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Colorina	789012845678901284567890128	S5 S6 ICV HIGH1 ICV HIGH2 ICSAI ICSAI ICSABI CCV1 CCB1 IPL010SB IPL010SC K145-04 K145-04 K145-04 K145-04 K145-05 K15-05	1471. -7.551 523.9 1.327 -59.77 850.8 1032.37 -850.8 1032.37 -920.90: -920.90: -921.5 -921	1454. 2.106 521.1 3011 97.001. 97.001. -30.40. .30.4	14.8.3.1.9 14.8.3.1.9 14.8.3.1.9 14.8.3.1.9 14.8.3.1.9 14.7.3.0.1.0.1.0.1.0.1.0.1.0.1.0.1.0.1.0.1.0	1448 6.386 507.46 1.488 507.46 1.07.46 1.07.44 1.07.44 1.07.46 1.07.44 1.07.46	1458.9 1459.4 1.79.4 1.829.4 1.829.3 1.829.3 1.829.3 1.920.	1.75142 4.75142 4.75142 4.75142 4.75142 4.36
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apasan	56 78 9 10 11 12 13	S4 S5 S6 ICV HIGH1 ICV HIGH2 ICV ICB ICSAI	-1.112 -435200. -440300. -10010.	75.7971 106.107 54.39 144700. 50930. 10.52 422500. 423400. 99600.	1.86466 2.36781 181.4 14560. 5146. 2.216 174800.	70.2134 98.972 -10.27 146906. 49060. 5.476 455100. 457700. 99690.	.1097 496.5 .1073 .1184 884.3 997.2	1.821 485.7 .3617

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Ana.	lysis Report Ave	erages		Bat 12-14-	-96 10:32	:00 AM	page 3
1	Jample Name	41	Ca	9-	Me	da	Cu
10345678901 202222333	IPL010SL IPL0106C K145-04 K145-04D K145-04T CCV2 CCB2 K145-05 K145-05D K145-05D K145-05T ICSAF ICSAF ICSABF CCV2 CCB3 1	686.8 1011e3 954500. 15e6 15e6 17e6 17e6 14e6 14e6 14e6 14e6 14e6 442800. 442800. 10020. 5.000. -95.75 -107.0	5312e3 5223e3 14e6 14e6 20e6 16e8 99780. 52.37 5509e3 3171e3 9163e3 432400. 425300. 30.77	2659. 1072e3 1046e3 35e6 35e6 37e6 40e6 10160. 14.39 54e6 47e6 47e6 62e6 179300. 184500. 184500. 2.197 103.22	1381. 4946e3 4873e3 9202e3 9064e3 14e6 11e6 99589 20.88e3 4852e3 9404e3 4852e3 9404e3 459400. 100100. 19.42 23.74	92270. 90410. 128.0 120.1 80550. 258.2 992.9 .0874 132.0 67.06 73600. 178.0 .1387 878.2 992.3 0810	10000000000000000000000000000000000000
45	Sample Name	Mn	V	2n	РЪ	Se	
4 5 6	5	.00599 17.5792 35.8936 50.4038	.00649 19.1259 38.8596 54.5897	.02098 6.76561 13.8636 19.2309			
111111111111111111111111111111111111111	ICY HIGH1 ICV HIGH2 ICV ICB ICSAT ICSABI CCV1 CCB1 IPL010SB IPL010SL IPL010SC K145-04 K145-04D K145-04D K145-04T CCV2 CCB2 K145-05 K145-05D K145-05D K145-05T ICSAF	1481. .8509 503.5 .0042 7.004 437.1 1011. .0178 23.37 100200. 98330. 748400. 956600. 9374700. 1049. .3483 926700. 845600. 1078e3 8.988 467.7 1085.	8140 22.68 476.8 1058. 2464 9910 103500. 101400. 102600. 108500. 214300. 214300. H1104. 1006 185800. 152400. 251900. 207900.	.4295 28.07 -874.4 995.4 .8021 87.66 90180. 55110. 58380. 136700. 66430. 983.4 3.119 45140. 32210. 10650. 51650. 28.49 865.6	.241: 45.45 950.5 1018. .9616 202.9 89710. 89520. 1171. 1434. 76130. 1249. 1014. 7.2807 3775. 1894. 72290. 4182. 46.94 955.1	509.4 .7713 -6.240 935.0 1028. 3.986 41.75 173000. -1639. -2344. 129600. -2390. 1008. 3.991 -2371. -1588. 114700. -11.70 942.4	

Ana	lysis Report	Averages		Sat 12-14	-98 10:32	:23 AM	page 4
#	Sampla Name	Mn ,	Λ	Zn	Pb	6e 	The last that the last the last the last
33	CCB3 1 1		5.587	.8776 5437 8409		-5.461	

g jedici dan.	Batch IP1	0053		Method	3005 🗆	3010 🗆	3050 🗆	CLP [Book	# T-E08-001	Page #	115
.		P		Starting	Date /と	107/46	Time	12:0	· ɔ	Ending Date	12/04/96	Time	17:00
F	Lab		Matrix		Sample		Extract	Dige	state	Standards	ID	Amount A	dded (ml)
	Sample		Description	n	Amount	pН	Volume	Descr	iption	LCS	Sc/4-06-03-09	1.0	
	ID ····	Color	Texture / Clarity	Artifacts	(g/mi)		(mi)	Color	Clarity	MS	SOIA-06-04-04	1.0	
79	2005 -SB				-		100.0				Suic-06-26-05	1.0	•
7. 2. 3. 4.	JL	:								· · ·			·
*	SC									Reagent	Lo	ot# / ID	
96	K145-21				1.0					HNO₃	116	080	
26	1003-C,				1					нсі		8040	
	x129 -C1	·								H ₂ O ₂	M/571	CPDY	
L	- C2												
11	1085-C1 -Cz										Г		1 .
L	-Cz									SDG#		ct Location	
Julie	KOYY-Ci										ICP	Lat	
	-C2				1								
96	KO85-11,14,16	1								Legend:	T	ī	1
-	-11,14,16	M		·						Color Bu = Blue	Texture	Clarity	Artifacts
_			<u> </u>							BI = Black	Cs = Coarse	Cr = Clear	Rk = Rocks
_		-								Gn = Green Bn = Brown	Md = Medium	Cy = Cloudy	SI = Shale
_										Gn = Green Og = Orange Rd = Red	Fn = Fine	Td = Turbid	
										Yw = Yellow Comments:	96K129 -C.	1 - comp). 8,10,12
										96 KCYS -	comp 1 - c 2 - 1x y - C1-	11,14,10	6
										96K04	4 - 61-	6,8,1	<i></i>
										1003-	C1 - 6,6	7-117, 8,10	
											C1 - G c	FY/	(os
espiriture,								,		St	andard Added By:	FY/	1 OS
ļ											Checked By	: <i>E</i> /	<u> </u>
<u> </u>				<u></u>						Extr	acts Received By	: <u>/</u>	028

Prep. Batch IPL	0045		Method	d 3005 E	3010	3050 [CLP	_ [7 0			114
Matrix So	i P		Starting	Date /と				:00		k # T-E08-0		<i>- π</i>
Lab				T			12		Prioring Date	e 12/04/9	6 TI	me 17/3
Sample		Matrix		Sample		Extract	Dig	estate	Standards	ID		nt Added (m
		Description	on	Amount	pН	Volume	Desc	cription	LCS	5014-06-03	M. T.	ه / سحبی
TO insulation	Color	Clarity	Artifacts	(g/ml)		(ml)	Color	Clarity	мѕ	5014-06-03 5014-06-03 5014-06-03	7 6	ه./ هـ
IP 1004-SB				_		100,0				\$11-06-26.	i	
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-Sc'									Reagent		Latt (ID	
96K145-01				1.0					HNO ₃	ill	C 80	
-0.5												
-03									HCI		6040	
-04									H ₂ O ₂	MIST	FPDY	
-05					1	$\neg + \downarrow$						
-06												
		$\neg \uparrow$							SDG#	Extr	act Location	n
-08										ICP	LAB	
-07 -08 -09 -09 -10 -11 -12 -13												
<i>b</i>									Legend:			
-10						-			Color	Texture	Clarity	Artifacts
									Bu = Blue Bi = Black C	s = Coarse	Cr = Clear	Rk = Rocks
-12	-								Bn = Brown	d = Medium		
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2-0		_		1						Checked By:		
EMAY										Received By:		
Sept 221 51. 3												

IPL OILS 120 Book # T-E08-001 Page # 3010 □ 3050 □ CLP □ Method 3005 □ rep. Batch TPL 0/0 S 17:00 12/13/96 Starting Date 12/13/96 11:30 **Ending Date** Time Amount Added (ml) ID Standards Extract Digestate Matrix Sample Lab 5014-06-07-0 LCS Volume Description Description Amount Sample Texture / MS 5014-06-04-04 Clarity (g/m/l) (ml) Color Color Clarity Artifacts 100.0 5010-26-25-03 IPLOID - SB 5010-06-33-01 6F44 IPLOID-SL Lot# / ID Reagent IPL010 -SC IPLO11 - SL HNO₃ 1160 80 416101 356040 05 12/13/96 IPLOII - SC HCI MISIEPOY 1.0 H₂O₂ 96 2039 - 02 -04 -06 SDG# **Extract Location** - 08 -10 -12 - 14 Legend: **Artifacts** -16 Clarity Texture Bu = Blue BI = Black Rk = Rocks Cs = Coarse Bn = Brown - 20 Gn = Green Md = Medium Cy = Cloudy |SI = Shale Bn = Brown Gn = Green Td = Turbid Vegetation Fn = Fine - 22 Og = Orange Rd = Red - 27 Yw = Yellow - 29 Comments: -29M - 295 -79M 030 - 295 -31 Prepared By: Standard Added By: のム/チリ 96K\$45-04 Checked By: FY -04M Extracts Received By:

EMAXANALYTICAL LABORATORIES INC., 630 Maple Ave., Torrance, CA 90503 TEL: (310) 618-8889 FAX: (310) 618-0818



<i>手Pし</i> Prep. Batch <i>TPL G</i>			Method	3005 🗆	3010 🗆	3050 [7	CLPIT		Rook	# T-E08-001	Dogod	<u>.</u> 121
	oi l			Date /Z			11:3			12/15/91		
Lab		Matrix		Sample	, , , , , , , , , , , , , , , , , , ,	Extract	Dige	estate	Standards	ID		Added (n
Sample		Description	on	Amount	pН	Volume		cription	LCS			
ID	Color	Texture / Clarity	Artifacts	(g/m/l)		(mi)	Color	Clarity		50/4-06-07-0		
96×145-0	5			1.0		100.0				5-10-06-26-	1	
	1					1	¥		GFAA	701C-06-33-	91 Z	. 0
-05A	1			7		Ţ			Reagent	L	ot# / ID	
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									НСІ	4/61		
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	-	1							Legend:			
	ļ			·					Color	Texture	Clarity	Artifact
									Bu = Blue Bl = Black	Cs = Coarse	Cr = Clear	Rk = Rock
									Bn = Brown Gn = Green	Md = Medium	Cy = Cloudy	SI = Shale
	1									Fn = Fine	Td = Turbid	Vg = Vegetation
									Og = Orange Rd = Red Yw = Yellow			
						-			Comments:		***************************************	· .
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	1 A 1											03
					`					Prepared By:	c	, 5
									Stan	dard Added By: _	OS	/FY
										Chećked By:		
EMAXA									Extrac	ts Received Bv:		



630 Maple Ave.

Torrance, CA 90503 Telephone: (310) 618-8889 Fax: (310) 618-0818

Date: 12-24-1996

EMAX Batch No.: 96L035

Attn: Mr. Mike Bailey

RCI

3233 Lance Drive, Unit #1

Stockton, CA 95205

Subject: Laboratory Report

Project: Fort Baker / Project 96-12

Enclosed is the Laboratory report for samples received on 12/11/96. The data reported include:

Sample	ID	Control #	Col Date	Matrix	Analysis
T2-N		L035-01	12/10/96	Soil	EPA 5030/M8015 EPA 8020 EPA M8015
T2-S		L035-02	12/10/96	Soil	Lead EPA 5030/M8015 EPA 8020 EPA M8015
SP-8		L035-03	12/10/96	Soil	Lead EPA 5030/M8015 EPA 8020 EPA M8015
SP-9		L035-04	12/10/96	Soil	Lead EPA 5030/M8015 EPA 8020 EPA M8015
SP-10		L035-05	12/10/96	Soil	Lead EPA 5030/M8015 EPA 8020 EPA M8015

Sample ID	Control #	Col Date	Matrix	Analysis
SP-11	L035-06	12/10/96	Soil	Lead EPA 5030/M8015 EPA 8020 EPA M8015
SP-12	L035-07	12/10/96	Soil	Lead EPA 5030/M8015 EPA 8020 EPA M8015
PL-11	L035-08	12/10/96	Soil	Lead EPA 5030/M8015 EPA 8020 EPA M8015
PL-12	L035-09	12/10/96	Soil	Lead EPA 5030/M8015 EPA 8020 EPA M8015
PL-13	L035-10	12/10/96	Soil	Lead EPA 5030/M8015 EPA 8020 EPA M8015
QC-3	L035-11	12/10/96	Soil	Lead EPA 5030/M8015 EPA 8020 EPA M8015 Lead

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D. Laboratory Director

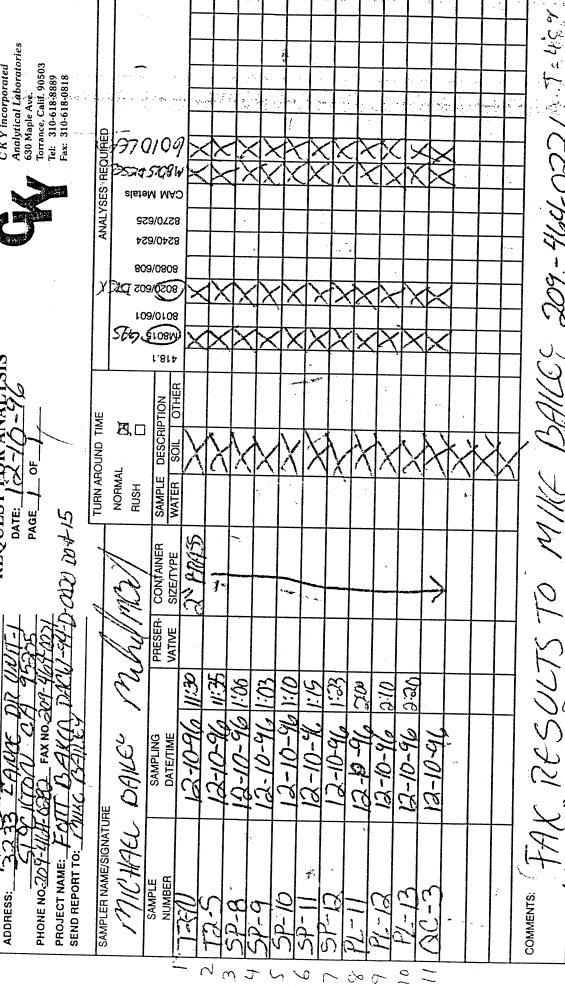
P.S. - All analyses requested for the above referenced project have been completed. Therefore, unless instructed, the remaining portions of the samples will be disposed after fifteen (15) days from the date of this report.

CHAIN OF CUSTODY RECORD

REQUEST, FOR, ANALYSIS

CLIENT

C K Y incorporated



Storage/Disposal of Samples: Sample will be stored at CKY for 30 days at no charge and at \$10/sample/month thereafter. Disposal of sample by the Laboratory will be charged at \$10/sample.

12027/2002/11-45%

Date:

Received by: (Signature)

Date:

Relinquished by: (Signature)

Date: 12-11-76

Date 2-90

Time:

Company:

Time:

Company:

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SAMPLE RECEIPT FORM

		SAMPLE A	RECEIPT FORM			14.	••••
CONTROL NO.	96L03 <i>5</i>	·				DATE	12- //96
CLIENT	R.C.1	\				TIME	10:00 AM.
PROJECT	FORT BAKEIL DACH-94- pour DO #15	51#00				RECIPIENT	I.PATEL
SAMPLE TRANSPORTATION TO EMAX LABORATORY	MAY I ABORATORY.		l A	OMONTEL	AT/TIMEN	EBOWICHEROD!	COMMENTS
PICKED-UP BY EMAX COURIER	MAN ENGLAND.			ON(DAIL)	A1(11)	(COMPANY)	COMMENT
• DELIVERED BY CLIENT							
SHIPPED/AIRBILL NO:	Fed Ex 236818720,	2368686994	See 13 W/ 146				
SAMPLE BATCH PACKAGING/SEALING UPON RECEIPT:	LING UPON RECEIPT:		NTACT	DAMAGED	SEALED	NOT SEALED	NO CONTAINE
CONTAINER:	NSIDE TEMPERATURE (4°C ± 2 °C)	4	ွ	CUSTODY SEAL		LOCATION	NUMBER
2 COOLERS	PACKAGING	ТҮРЕ	SUFFICIENCY	INTACT	DAMAGED		
BOX	INSULATION:			NAME:	See Coc	· · · · · · · · · · · · · · · · · · ·	
OTHER:	ICE/COOLANT:	Regular	700	DATE:		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	
	PACKING MATERIAL:	, none		TIME:			-
CANDI E POVI MENTATIONICIJANI OF CIICTONICO	ocolydotolio ad la		סביאונט	A SOCIOLARIA	Chicaronies	27747	GE TANK
SAIWI LE DOCOMENIATIONOLIA	4-OF-COSTODI(COS)			EINCLOSED	HANDOARRIED		WAILED
SAMPLE LOGINI:		CBITCBIA		COLUMNICATION		TANGUIGO GIA	
SAINITE LOS-IIV.		CALLENIA		COMMENIS		LISCREPANCI	1.
SAMPLE CUSTODY SEAL		EVERY SAMPLE	Mone				
CONTAINER TYPEMATERIAL		APPROPRIATE	οK				
SAMPLE AMOUNT		ENOUGH	١,١				
HOLDING TIME		SUFFICENT	1			e de la companya de	
		NaOH preserved samples pH≥12	-				
SAMPLE PRESERVATION (For appropriate preservative see GP-0001 Appendix I)		HNO₃ / H₂SO₄ preserved samples pH ≤ 2					
HEADSPACE/BUBBLES		ZEROMONE					
SAMPLE LABEL INFORMATION		SUFFICIENT					-
CHAIN-OF-CUSTODY INFORMATION		SUFFICIENT .	♪				
SAMPLE INFO.:	SAMPLE ID //	DATE	TIME	SIGNATURE	ANALYSES	PRESERVATIVE	-CONTAINER
INDIVIDUAL SAMPLE CONTAINER:		NONE	✓ SEALED PLASTIC BAG	MG	CAN	OTHEŘ(SPECIFY):	
SAMPLE NUMBER	CLIENT ID		DISCREPANCY			ACTION	
AL	7	NO. S. DATE ON TO	THE LANGTED			2	
11-		NO S.DATE & TIME	o on THE LAME	AMEL /			\
						· · · · ·	\
				\			
						1.1	
						•	٠
						7. P	
		\$\frac{\pi}{\pi}\times\t					
CLIENT SERVICES COPY RECEIVED BY	ЕО ВҮ	BEWING		DATE	12/11/9 6	TIME	٠
					1 1 11		

LABORATORY REPORT FOR

RCI

FORT BAKER / PROJECT 96-12

EPA 5030A/M8015 TOTAL PETROLEUM HYDROCARBONS BY PURGE & TRAP

SDG#: 96L035

DECEMBER 19, 1996

CASE NARRATIVE

CLIENT:

RCI

PROJECT:

FORT BAKER / PROJECT 96-12

SDG:

96L035

EPA 5030A/M8015 TOTAL PETROLEUM HYDROCARBONS BY PURGE & TRAP

Eleven (11) soil samples were received on 12/11/96 to be analyzed for gasoline by 5030/M8015 accordance with SW846 (1986) and Leaking Underground Fuel Tank (LUFT) Field Manual, SWRCB, Dept. of Health Service, CA (1988).

1. Holding Time

Analytical holding time was met.

2. Surrogate Recovery

All surrogate recoveries were within QC limits.

3. Matrix Spike/Matrix Spike Duplicate

All recoveries and RPD were within QC limits.

4. Lab Control Sample

Recoveries were within QC limits.

5. Method Blank

Method blank was free of contamination.

6. Calibration

Initial calibration was at 5-point, continuing calibrations were carried out at 10-samples interval. All QC requirements were met.

7. Sample Analysis

All sample analyses were done within QC limits.

LAB CHRONICLE EPA 5030/M8015

CLIENT: RCI PROJECT: Fort Baker / Project 96-12

SDG/BATCH NO.: 96L035

MATRIX: Soil

SAMPLE ID	CONTROL %H2O	PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB REF	FILE ID
Г2-N	L035-01 25.6	VALO914	BL10 12 11-96 @ 1324	BU0-2	BL10 -17
[2-S	L035-02 17.8		1353]	/i
SP-8	L035-03 18.2		1422		
SP - 9	L035-04 11.5		1520	BL10-13	
SP-10	L035-05 23.0		1549		· · · · · · · · · · · · · · · · · · ·
SP-11	L035-06 18.4				!· [[
SP-12	L035-07 21.1		1618		
PL-11	L035-08 7.3		[64]		
1-12	L035-09 8.5		1716		1
PL-13	L035-10 20.3		174		
2C-3	L035-11 19.8		[8]	4	<u> </u>
<u></u>	1000 11 10.0		184	f3 l,	
BLK	VALOGIZB		BL10/12-11-96/@ 093.	2 BUO-1	2 3
LCS	L		looi	4	4
LCSD	C		103		V
Ms	L033-03M		115	7	8
M50	<i>b</i> 35	j	20)54	
			antinati di di 1860 di	<u> </u>	

EPA 5030A/M8015 TOTAL PETROLEUM HYDROCARBONS BY PURGE & TRAP

CLIENT: RCI DATE COLLECTED: 12/10/96
PROJECT: Fort Baker / Project 96-12 DATE RECEIVED: 12/11/96
PATCH NO.: 96L035 DATE EXTRACTED: NA
PRIX: SOIL DATE ANALYZED: 12/11/96

SAMPLE ID	CONTROL NO	RESULT %	RECOVERÝ SURR	DL MOIST FACTOR (%)	RL (mg/kg)
T2-N T2-S SP-8 SP-9 SP-10 SP-11 SP-12 PL-11 PL-12 PL-13 QC-3 MBLK1S	L035-01 L035-02 L035-03 L035-04 L035-05 L035-06 L035-07 L035-08 L035-09 L035-10 L035-11 VAL0914B		99427646881552 88888788	1 25.6 1 17.8 1 18.2 1 11.5 1 23.0 1 18.4 1 21.1 1 7.3 1 8.5 1 20.3 1 19.8 1 NA	.661 .661 .565 .663 .55325

QC LIMIT: 65-135

QC LIMIT: SURR : Bromofluorobenzene RL : Report Limit

EMAX QUALITY CONTROL DATA MS/MSD ANALYSIS

CLIENT:

PPOJECT:

Fort Baker / Project 96-12

DD:

EPA 5030A/M8015

.IX:

SOIL

BATCH NO.:

96L035

SAMPLE ID: CONTROL NO.: 18575-515

L033-03

96L035 L033

PARAMETER ------Gasoline

ACCESSION:

SMPL RSLT SPIKE AMT

5.28

MS RSLT (mg/kg) 4.87

MS % REC 92 SPIKE AMT (mg/kg) 5.28

MSD RSLT (mg/kg)

5.06

MSD % REC

DATE RECEIVED:

DATE ANALYZED:

DATE EXTRACTED: NA

grade terligia a traditional pages adamenta traditional proceeds about the contraction of

NA

96

12/11/96

RPD %

QC LIMIT RPD LIMIT % % 65-135

SURROGATE PARAMETER

-----Bromofluorobenzene

SPIKE AMT (mg/kg)

.264

MS RSLT

MS % REC .274 104 SPIKE AMT (mg/kg) .264 MSD RSLT (mg/kg) .220

MSD QC LIMIT % REC

83

% 65-135

004

EMAX QUALITY CONTROL DATA LCS/LCD ANALYSIS

CLIENT:

RCI

PROJECT:

Fort Baker / Project 96-12

'OD:

EPA 5030A/M8015

SOIL

MOISTURE: _______

NA :

BATCH NO.:

96L035

SAMPLE ID:

LCS1S/LCS1SD

CONTROL NO.:

VAL0914L/C

DATE RECEIVED:

DATE EXTRACTED: NA

DATE ANALYZED: 12/11/96

ACCESSION:

96L035 L033

Gasoline

BLNK RSLT SPIKE AMT BS RSLT (mg/kg)

(mg/kg) 5.00

BS (mg/kg) % REC

SPIKE AMT BSD RSLT (mg/kg) 95 5.00

(mg/kg) 4.95

BSD % REC QC LIMIT RPD LIMIT

70-125

SURROGATE PARAMETER

SPIKE AMT BS RSLT (mg/kg) (mg/kg)

BS

SPIKE AMT (mg/kg)

BSD RSLT (mg/kg) BSD

QC LIMIT %

Bromofluorobenzene

.250 .227

91 .250

.225

65-135

EMAX LABORATORIES

			NITIAL CALIBRATION	N		4-Dec-96
GC#14		GASOLINE			OMOFLOUROBENZE	INE .
Data	Conc.	Area	Response	Conc.	Area	Response
File	ppb		Factor	ppb		Factor
BL04-1	100	288128	3.471E-04	30	49570	6.052E-04
BL04-2	500	1453040	3.441E-04	40	69482	5.757E-04
BL04-3	1000	2721260	3.675E-04	50	83466	5.990E-04
BL04-4	3000	8985053	3.339E-04	80	155993	5.128E-04
BL04-5	5000	12809429	3.903E-04	100	200549	4.986E-04
	% Relative S	d. Deviation	6%	% Relative S	td. Deviation	8%
	Average Resp	oonse Factor	3.566E-04	Average Res	ponse Factor	5.583E-04

		DAIL	Y CALIBRATION CH	HECK		11-Dec-96
DATA FILE	DCC#	RF	%DIFF	%SURR. REC.	COMI	MENTS
BL10-2	1	3.62E-04	2	90	DCC PASSED	SURR. PASSED
BL10-13	2	3.43E-04	4	101	DCC PASSED	SURR. PASSED
BL10-22	3	3.25E-04	9	96	DCC PASSED	SURR. PASSED

	STANDARDS		
ANALYTE	ICAL STD.	BFB	CHECK STD.
Int. Standard	S16A-01-04-02	S16C-01-69-02	S16B-01-01-01
Conc. (ppm)	2500	50	5000
SOURCE	RESTEK	RESTEK	MOBIL

Analyzed By: EAU

Checked By: WTN

EMAX LABORATORIES

					4-Dec-96		
INITIAL CALIBRATION							
	GASOLINE	Maria de Adela de Cara de Cara La composição de Cara d	BROMO	FLOUROBE	NZENE		
Conc	7 - 7 - 8 A	Response	Conc.	Area	Response		
		Factor	ppb		Factor		
	288128	3.471E-04	30	49570	6.052E-04		
		3.441E-04	40	69482	5.757E-04		
			50	83466	5.990E-04		
			80	155993	5.128E-04		
			100	200549	4.986E-04		
% Relative Std. Deviation				Std. Deviation	8%		
					5.583E-04		
		GASOLINE Conc. Area ppb	GASOLINE Conc. Area Response ppb Factor 100 288128 3.471E-04 500 1453040 3.441E-04 1000 2721260 3.675E-04 3000 8985053 3.339E-04 5000 12809429 3.903E-04 % Relative Std. Deviation 6%	GASOLINE BROMO Conc. Area Response Conc. ppb Factor ppb 100 288128 3.471E-04 30 500 1453040 3.441E-04 40 1000 2721260 3.675E-04 50 3000 8985053 3.339E-04 80 5000 12809429 3.903E-04 100 % Relative Std. Deviation 6% % Relative Std.	GASOLINE BROMOFLOUROBE Conc. Area Response Conc. Area ppb Factor ppb		

STANDARDS									
ANALYTE	ICAL STD.	BFB	CHECK STD.						
Int. Standard	S16A-01-04-02	S16C-01-69-02	S16B-01-01-01						
	2500	50	5000						
Conc. (ppm)	RESTEK	RESTEK	MOBIL						

Analyzed By: EU / IR/S/9

Checked By: WTN

SEQUENCE RECORDED IN F:\AL11.SEQ

SEQUENCE FILE: F:\AL11.SEQ

SAMPLE NAME	METHOD NAME	DATA FILE	AMOUNT INJECTED	INT.STD. AMOUNT	DILUTION FACTOR	SAMPLE WEIGHT
1 VAL0914IB	ADUALJ	AL10-	1.0000	1.0000	1.0000	1.0000
2 DCC1 GAS 1 PPM	ADUALJ	AL10-	1.0000	1.0000	1.0000	1.0000
3 VAL0914B	ADUALJ	AL10-	1.0000	1.0000	1.0000	1.0000
4 VAL0914L	ADUALJ	AL10-	1.0000	1.0000	1.0000	1.0000
5 VAL0914C	ADUALJ	AL10-	1.0000	1.0000	1.0000	1.0000
6 96L033-02 1.0gm S	ADUALJ	AL10-	1.0000	1.0000	1.0000	1.0000
7 96L033-03 1.0gm S	ADUALJ	AL10-	1.0000	1.0000	1.0000	1.0000
8 96L033-03M 1.0gm S	ADUALJ	AL10-	1.0000	1.0000	1.0000	1.0000
9 96L033-03\$ 1.0gm \$	ADUALJ	AL10-	1.0000	1.0000	1.0000	1.0000
10 96L035-01 1.0gm S	ADUALJ	AL10-	1.0000	1.0000	1.0000	1.0000
11 96L035-02 1.0gm S	ADUALJ	AL10-	1.0000	1.0000	1.0000	1.0000
12 96L035-03 1.0gm S	ADUALJ	AL10-	1.0000	1.0000	1.0000	1.0000
13 DCC2 GAS 1 PPM	ADUALJ	AL10-	1.0000	1.0000	1.0000	1.0000
14 96L035-04 1.0gm 5	ADUALJ	AL10-	1.0000	1.0000	1.0000	1.0000
15 96L035-05 1.0gm S	ADUALJ	AL10-	1.0000	1.0000	1.0000	1.0000
16 96L035-06 1.0gm S	ADUALJ	AL10-	1.0000	1.0000	1.0000	1.0000
17 96L035-07 1.0gm S	ADUALJ	AL10-	1.0000	1.0000	1.0000	1,0000
18 96L035-08 1.0gm S	ADUALJ	AL10-	1.0000	1.0000	1.0000	1.0000
19 96L035-09 1.0gm S	ADUALJ	AL10-	1.0000	1.0000	1.0000	1.0000
20 96L035-10 1.0gm S	ADUALJ	AL10-	1.0000	1.0000	1.0000	1.0000
21 96L035-11 1.0gm S	ADUALJ	AL10-	1.0000	1.0000	1.0000	1.0000
22 DCC3 GAS 1 PPM	ADUALJ	AL10-	1.0000	1.0000	1.0000	1.0000

LABORATORY REPORT FOR

RCI

FORT BAKER / PROJECT 96-12

EPA M8015 TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

SDG#: 96L035

DECEMBER 24, 1996

CASE NARRATIVE

CLIENT:

PROJECT:

FORT BAKER / PROJECT 96-12

SDG:

96L035

EPA M8015 TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

Eleven (11) soil samples were received on 12/11/96 for Total Petroleum Hydrocarbons by M8015 in accordance with SW846 and Leaking Underground Fuel Tank (LUFT) Field Manual, SWRCB, Dept. of Health Service, CA (1988).

1. Holding Time

Analytical holding time was met.

2. Surrogate Recovery

> Bromobenzene and Hexacosane were used as surrogates in method blank, samples, LCS, MS and MSD. The recoveries were all within QC limits.

3. Matrix Spike/Matrix Spike Duplicate

All recoveries and RPD were within QC limits.

4. Lab Control Sample/Lab Control Samples Duplicate

All recoveries and RPD were within QC limits.

5. Method Blank

Method blank was free of contamination.

6. Calibration

> Initial calibration was at five-point and continuing calibration were carried out at 10-samples interval. All QC requirements were met.

7. Sample Analysis

Sample analyses met QC requirements.

EPA METHOD M8015 TOTAL PETROLEUM HYDROCARBONS BY EXTRACTION

CLIENT: PROJECT: BATCH NO.:	96L035 SOIL	Project	DATE DATE	COLLECTED: RECEIVED: EXTRACTED: ANALYZED:	15/15/26
	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		 		=======

SAMPLE ID	CONTROL NO	RESULT (mg/kg)	H-C RANGE	% REC	OVERY SURR2	DL I FACTOR	MOIST (%)	RL (mg/kg)
T2-N T2-S SP-8 SP-9 SP-10 SP-11 SP-12 PL-11 PL-12 PL-13 QC-3 MBLK1S	L035-01 L035-02 L035-03 L035-04 L035-05 L035-06 L035-07 L035-08 L035-09 L035-10 L035-11 DSL011SB	ND 24+ ND ND ND ND ND ND 170* ND ND ND ND ND ND ND ND ND ND ND ND ND	N.A. C19-C23 N.A. N.A. N.A. N.A. N.A. C18-C32 C18-C32 N.A. N.A.	99999999999999999999999999999999999999	104 104 103 103 102 103 100 102 100 103 101	1 1 1 1 1 1 1 2 1	25.6 17.8 18.2 123.0 18.4 21.1 8.5 20.3 19.NA	2.69 2.43 2.426 2.45 2.45 2.157 2.137 2.319 2.319 2.319 2.319 2.319

65-135 65-135

QC LIMIT: SURR1 : SURR2 : RL : Bromobenzene Hexacosane

RL : Report Limit

* : Motor-oil like pattern, quantitated as diesel.
+ : Non-typical fuel pattern, quantitated as diesel.
DATE ANALYZED: 12/14/96, for L035-05 to 11

EMAX QUALITY CONTROL DATA LCS/LCD ANALYSIS

CLIENT:

RCI

PROJECT:

Fort Baker / Project 96-12

METHOD: MATRIX:

EPA M8015

DISTURE:

SOIL NA

BATCH NO.: SAMPLE ID: CONTROL NO .:

96L035 LCS1S/LCS1SD

DSL011SL/C

DATE RECEIVED: NA

DATE EXTRACTED: 12/13/96 DATE ANALYZED: 12/13/96

ACCESSION:

96L035 96L047

BLNK RSLT SPIKE AMT BS RSLT BS SPIKE AMT BSD RSLT BSD RPD QC LIMIT RPD LIMIT PARAMETER % REC (mg/kg) (mg/kg) (mg/kg) (mg/kg) (mg/kg) % Diesel 500.00 513.00 103 500.00 ND 574.00 70-130 35

SURROGATE PARAMETER	SPIKE AMT (mg/kg)	BS RSLT (mg/kg)	BS % REC	SPIKE AMT (mg/kg)	BSD RSLT (mg/kg)	BSD % REC	QC LIMIT
Bromobenzene	100.00	89.00	89	100.00	89.00	89	65-135
Hexacosane	100.00	93.00	93	100.00	91.00	91	65-135

CLIENT:

PROJECT:

Fort Baker / Project 96-12

METHOD: MATRIX:

EPA M8015

% "PISTURE:

SOIL 19.8

BATCH NO.: 96L035 SAMPLE ID:

QC-3 L035-11 DATE RECEIVED: 12/11/96
DATE EXTRACTED: 12/13/96

DATE ANALYZED: 12/14/96

ACCESSION:

PARAMETER

-----Diesel

Hexacosane

CONTROL NO .:

96L035 96L047

ND

125.00

SMPL RSLT SPIKE AMT (mg/kg) (mg/kg)

623.00

MS RSLT MS (mg/kg) % REC

675.00

118.00

SPIKE AMT MSD RSLT (mg/kg)

623.00

125.00

(mg/kg)

691.00

MSD % REC

115.00

RPD QC LIMIT % %

92

2

% 65-135

65-135

65-135

RPD LIMIT

SPIKE AMT MS RSLT MS SPIKE AMT MSD RSLT MSD QC LIMIT SURROGATE PARAMETER (mg/kg) % REC (mg/kg) (mg/kg) (mg/kg) 125.00 Bromobenzene 111.00 89 125.00 110.00 88

95

108

INITIAL CALIBRATION DATA METHOD M8015 (Diesel)

Lab Name: EMAX

SDG: 96L035

Instrument ID: <u>GC-4</u>

GC Column: DB-1

Date Analyzed: 10/08/96

Date Analyzed: 10/08/96

		DIESEL		i i		BROMOBENZENE	HEXACOSANE
DATA FILE	CONC.	AREA x 10 ³	CALIBRATION FACTOR x10 ³	DATA FILE	CONC.	CALIBRATION FACTOR x10 ³	CALIBRATION FACTOR x10 ³
JN07-18	10	101	10.10	JN07-13	70	7.74	13.04
JN07-19	100	1012	10.12	JN07-14	80	7.99	13.42
JN07-20	500	5546	11.09	JN07-15	100	7.76	13.95
JN07-21	1000	11615	11.62	JN07-16	120	7.91	14.95
JN07-22	2000	23906	11.95	JN07-17	130	8.64	9.84
	М	EAN	10.98	Me	AN	8.01	13.04
	Relative	Std. Dev.	8%	Relative	Std. Dev.	4%	15%

DAILY CALIBRATION CHECK				
DATE	DATA FILE	ACF x 10 ³	CF x 10 ³	% DIFF.
12/13/96	LN13-2	10.98	11.24	2
12/14/96	LN13-16	10.98	11.51	5
12/14/96	LN13-27	10.98	11.67	6

SEQUENCE RECORDED IN J:\LN13.SEQ

SEQUENCE FILE: J:\LN13.SEQ

SAMPLE NAME	METHOD NAME	DATA FILE	AMOUNT INJECTED	INT.STD.	DILUTION FACTOR	SAMPLE WEIGHT
***************************************						MCIGUI
1 HECL	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
2 DCC1 D500	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
3 DCC1 JP5 500	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
4 DCC1 MO 500	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
5 DSL011S8	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
6 DSL011SL	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
7 OSLO11SC	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
8 96L035-01	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
9 96L035-02	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
10 96L035-03	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
11 96L035-04	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
12 96L035-05	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
13 96L035-06	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
14 96L047-02	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
15 MECL	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
16 DCC2 D500	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
17 96L035-07	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
18 96L035-11	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
19 96L035-11M	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
20 96L035-11S	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
21 96L035-08	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
22 96L035-10	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
23 MECL	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
24 96L035-09T 2X	M8015	LN13-	1.0000	1.0000	2.0000	1.0000
25 MECL	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
26 96L014-01T 5X	M8015	LN13-	1.0000	1.0000	5.0000	1.0000
27 DCC3 D500	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
28 DCC3 JP5 500	M8015	LN13-	1.0000	1.0000	1.0000	1.0000
29 DCC3 MO 500	M8015	LN13-	1.0000	1.0000	1.0000	1.0000

EXTRACTION LOG FOR TPH

Prep. Batch DSL 0/1 5	Method			Book # Cl	YT-E06-003	Page # 123
Prep. Batch DSL O// S Matrix Sori P	Starting Date	12/0/9	6 Time 16:00		12/13/96	Time /7/3
Lab	Sample	Extract		Standards	ID	Amount Added (ml)
Sample	Amount	Volume	Notes	Surrogate	5040101193	10.0
ID ID	(g/ml)	(mi)		LCS/MS	509/301-07-06	
DSL011 - SR - SL		10.0				
- Sc				Reagent	Le	ot# / ID
961047-02	10.0			CH ₂ Cl ₂	902650	
961035-01				Na₂SO₄	35290	
- 02						
-03						
-oy						
-05						
-96						
-07						1
-08				SDG#	Extrac	t Location
-09						
-10		-/-				
-11		1				
- 11M				Comments: _		
Tagain.						
— /L	*	- L		-		
7270					Prepared By:	• 5
				Stand	dard Added By:	·5/c>
	i				Checked By:	
					•	
				Extract	s Received By:	007

EMAXANALYTICAL LABORATORIES INC., 630 Maple Ave. Torrance C4 90503 TEL 13101 618-8989 EAV. 13101 619-0919

LABORATORY REPORT FOR

RCI

FORT BAKER / PROJECT 96-12

EPA 5030A/8020A BTEX

SDG#: 96L035

DECEMBER 19, 1996

CASE NARRATIVE

CLIENT:

RCI

PROJECT:

FORT BAKER / PROJECT 96-12

SDG:

96L035

EPA 5030A/8020A BTEX

Eleven (11) soil samples were received on 12/11/96 to be analyzed for aromatic volatile organics (BTEX) EPA Method 8020 analysis in accordance with USEPA SW846.

Holding Time

Analytical holding time was met.

2. Surrogate Recovery

All surrogate recoveries were within QC limits.

3. Matrix Spike/Matrix Spike Duplicate

All recoveries and RPD were within QC limits.

4. Lab Control Sample

All recoveries were within QC limits.

5. Method Blanks

Method blanks were free of contamination.

6. Calibration

Initial was at 5-point and continuing calibrations were carried out at 10-samples interval. All QC requirements were met.

7. Sample Analysis

All sample analyses were done within QC requirements.

001

LAB CHRONICLE EPA 8020

LLIENT: RCI PROJECT: Fort Baker / Project 96-12

SDG/BATCH NO.: 96L035 MATRIX: Soil

	=======================================		=======================================	
SAMPLE ID	CONTROL %H20 NO	O PREPARATION BATCH/DATE/TIME	ANALYTICAL BATCH/DATE/TIME	CALIB FILE REF ID
T2-N	L035-01 25.	6 VA 407	LIV 12-12-96 @ OUG	
T2-S	L035-02 17.8	NALD97		
SP-8	L035-03 18.2	2		2 LII-013R LII-02
SP-9	L035-04 11.5	5	1812	
SP-10	L035-05 23.0	0	19:	
SP-11	L035-06 18.4	1	190	
SP-12	L035-07 21.1	VALIOT		
PL-11	L035-08 7.3	1	225	24 LIL-028R 33
L-12	L035-09 8.5			
PL-13	L035-10 20.3	8	234	<u> </u>
QC-3	L035-11 19.8	3	12-12-96 100:	
Bikl	VALO97B	VA LUGA	12-11-96 0 09	
Lesi	L	•		1 4
LCSD1	C			1 5
MS	L035-01M	VA 1107	12-12-960 014	2 41-040R 41R
MSD	DIS	+	1 020	
BIKZ	VALIO7 B	VALID 7	12-11-960 211	· · · · · · · · · · · · · · · · · · ·
LCS2	L		213	
LCSP2	C		22	•

CLIENT: RCI PROJECT: Fort Baker / Pr BATCH NO.: 96L035 SAMPLE ID: T2-N CONTROL NO.: L035-01 % MOISTURE: 25.6	roject 96-12 DATE RECE DATE EXTR	ECTED: 12/10/96 EIVED: 12/11/96 PACTED: NA LYZED: 12/11/96
% MOISTURE: 25.6	DILUTION	FACTOR: 1
PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Benzene Toluene Ethylbenzene Total Xylenes	ND ND ND ND	6.72 6.72 6.72 20.2
SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Bromofluorobenzene	100	65-135
=======================================	=======================================	===========

	<u> </u>	
CLIENT: RCI PROJECT: Fort Baker / Pro BATCH NO.: 96L035 SAMPLE ID: T2-S CONTROL NO.: L035-02 % MOISTURE: 17.8	oject 96-12 DATE RECE DATE EXTR DATE ANAL MATRIX:	ECTED: 12/10/96 IVED: 12/11/96 ACTED: NA YZED: 12/11/96 FACTOR: 1
PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Benzene Toluene Ethylbenzene Total Xylenes	ND ND ND ND	6.08 6.08 6.08 18.2
SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Bromofluorobenzene	102	65-135
=======================================		==========

CLIENT: RCI PROJECT: Fort Baker / Project 9 BATCH NO.: 96L035 SAMPLE ID: SP-8 CONTROL NO: L035-03 % MOISTURE: 18.2	96-12 DATE RECEI DATE EXTRA DATE ANALY MATRIX:	CTED: NA 721/96
PARAMETERS Benzene Toluene Ethylbenzene Total Xylenes	RESULTS (ug/kg) ND ND ND ND ND ND ND	RL (ug/kg) 6.11 6.11 6.11 18.3
SURROGATE PARAMETER Bromofluorobenzene	% RECOVERY 101	QC LIMIT 65-135

CLIENT: RCI PROJECT: Fort Baker / Project BATCH NO.: 96L035 SAMPLE ID: SP-9	96-12 DATE REC	אזא רויטידיי) א סי
SAMPLE ID: SP-9 CONTROL NO.: L'035-04 % MOISTURE: 11.5	MATRIX: DILUTION	LYZED: 12/11/96 SOIL FACTOR: 1
PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Benzene Toluene Ethylbenzene Total Xylenes	ND ND ND ND ND	5.65 5.65 5.65 16.9
SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Bromofluorobenzene	93 	65-135

		<u> 1 28 25 14 24 14 44 25 25 25 26 26 26 27 27 28 28 28 28 28 28 28 28 28 28 28 28 28 </u>	
CLIENT: PROJECT: BATCH NO: SAMPLE ID: CONTROL NO: MOISTURE:	RCI Fort Baker / Project 96L035 SP-10 L035-05 23.0	96-12 DATE F	COLLECTED: 12/10/96 RECEIVED: 12/11/96 EXTRACTED: NA NALYZED: 12/11/96 CON FACTOR: 1
PARAMETERS		RESULTS (ug/kg)	RL (ug/kg)
Benzene Toluene Ethylbenzene Total Xylenes	5	ND ND ND ND	6.49 6.49 19.5
SURROGATE PAR Bromofluorobe	RAMETER enzene	% RECOVERY 99	QC LIMIT 65-135
=========	=======================================	==========	=======================================

	<u></u>	
CLIENT: RCI PROJECT: Fort Baker / Proje BATCH NO: 96L035 SAMPLE ID: SP-11 CONTROL NO: L035-06 % MOISTURE: 18.4		YZED: 12/11/96 SOTI
PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Benzene Toluene Ethylbenzene Total Xylenes	ND ND ND ND	6.13 6.13 6.13 18.4
SURROGATE PARAMETER Bromofluorobenzene	% RECOVERY 88	QC LIMIT 65-135
=======================================	=======================================	03-135

CLIENT: RCI PROJECT: Fort Baker BATCH NO: 96L035 SAMPLE ID: SP-12 CONTROL NO: L035-07 % MOISTURE: 21.1	DATE / Project 96-12 DATE DATE DATE MATR DILU	RECEIVED: 12/11/96 EXTRACTED: NA ANALYZED: 12/11/96 IX: SOIL
PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Benzene Toluene Ethylbenzene Total Xylenes	ND ND ND ND	6.34 6.34 6.34 19
SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Bromofluorobenzene	87	65-135
=======================================		=======================================

CLIENT: RCI PROJECT: Fort Bake BATCH NO.: 96L035 SAMPLE ID: PL-11 CONTROL NO.: L035-08 % MOISTURE: 7.3	DATE MATE	E RECEIVED: 12/11/96 E EXTRACTED: NA
PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Benzene Toluene Ethylbenzene Total Xylenes	ND ND ND ND	5.39 5.39 5.39 16.2
SURROGATE PARAMETER Bromofluorobenzene	% RECOVERY 90	QC LIMIT 65-135
=======================================	=======================================	=======================================

	=======================================	
BATCH NO.: 96L035	ect 96-12 DATE RECE DATE EXTR	ECTED: 12/10/96 IVED: 12/11/96 ACTED: NA
SAMPLE ID: PL-12 CONTROL NO.: L035-09 % MOISTURE: 8.5	DATE ANAL MATRIX: DILUTION	SOTI
	RESULTS	
PARAMETERS	(ug/kg)	RL (ug/kg)
Benzene	ND	5.46
Toluene Ethylbenzene	ND ND	5.46 5.46
Ethylbenzene Total Xylenes	ND	16.4
SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Bromofluorobenzene	81	65-135
=======================================	=======================================	=========

CLIENT: RCI PROJECT: Fort Baker / Project BATCH NO.: 96L035 SAMPLE ID: PL-13 CONTROL NO: L035-10 % MOISTURE: 20.3	96-12 DATE REC	SOTT
PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Benzene Toluene Ethylbenzene Total Xylenes	ND ND ND ND	6.27 6.27 6.27 18.8
SURROGATE PARAMETER Bromofluorobenzene	% RECOVERY 89	QC LIMIT 65-135
=======================================	=======================================	==========

=========			
CLIENT: PROJECT: BATCH NO.: SAMPLE ID: CONTROL NO.: MOISTURE:	RCI Fort Baker / Project 96L035 QC-3 L035-11 19.8	DATE DATE MATRI	COLLECTED: 12/10/96 RECEIVED: 12/11/96 EXTRACTED: NA ANALYZED: 12/12/96 X: SOIL TION FACTOR: 1
PARAMETERS Benzene Toluene Ethylbenzene Total Xylenes	s	RESULTS (ug/kg) ND ND ND ND	RL (ug/kg) 6.23 6.23 6.23 18.7
SURROGATE PAR Bromofluorobe	RAMETER enzene	% RECOVERY 92	QC LIMIT 65-135
==========		=======================================	=======================================

=======================================		
CLIENT: RCI PROJECT: Fort Baker BATCH NO.: 96L035 SAMPLE ID: MBLK1S CONTROL NO.: VAL097B % MOISTURE: NA	DATE DATE DATE DATE DATE DATE DATE DATE	RECEIVED: NA EXTRACTED: NA ANALYZED: 12/11/96 IX: SOIL
PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Benzene Toluene Ethylbenzene Total Xylenes	ND ND ND ND ND	5 5 5 5 15
SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Bromofluorobenzene	93	65-135
=======================================	=======================================	=======================================

CLIENT: RCI PROJECT: Fort Baker / BATCH NO.: 96L035 SAMPLE ID: MBLK2S CONTROL NO.: VAL107B % MOISTURE: NA	Project 96-12 DATE RECEDATE EXTR	ECTED: NA LVED: NA LACTED: NA LYZED: 12/11/96 SOIL FACTOR: 1
PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Benzene Toluene Ethylbenzene Total Xylenes	ND ND ND ND	5 5 5 15
SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Bromofluorobenzene	108	65-135
=======================================		==============

EMAX QUALITY CONTROL DATA MS/MSD ANALYSIS

CLIENT:

RCI

PROJECT:

Fort Baker / Project 96-12

: QC'

EPA 5030A/8020A

х:

SOIL

ADISTURE:

25.6

BATCH NO.:

96L035

SAMPLE ID: CONTROL NO.:

T2-N L035-01

ACCESSION:

96L035

DATE RECEIVED:

12/11/96

DATE EXTRACTED: NA

DATE ANALYZED:

12/11/96

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD %	QC LIMIT	RPD LIMIT
Benzene Toluene Ethylbenzene Total Xylenes	ND ND ND	336.02 336.02 336.02 1008.06	317.84 319.13 317.30 815.90	95 95 94 81	336.02 336.02 336.02 1008.06	310.38 311.63 309.09 790.62	92 93 92 78	2 2 3 3	65-135 65-135 65-135 65-135	40 40 40 40

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT	
Bromofluorobenzene	336.02	341.33	102	336.02	316.63	94	65-135	

EMAX QUALITY CONTROL DATA LCS/LCD ANALYSIS

CLIENT:

RCI

PROJECT:

Fort Baker / Project 96-12

: QOF

EPA 5030A/8020A

≀XI

SOIL

MOISTURE: NA

BATCH NO.:

96L035

SAMPLE ID: CONTROL NO.: VAL097L/C

LCS1S/LCS1SD

DATE RECEIVED: NA

DATE EXTRACTED: NA

DATE ANALYZED: 12/11/96

ACCESSION:

96L035 L033 L036

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD %	QC LIMIT	RPD LIMIT %
Benzene	ND	250.00	267.61	107	250.00	273.13	109	2	70-125	/0
Toluene	ND	250.00	271.07	108	250.00	275.96	110	2	70-125	40 40
Ethylbenzene	ND	250.00	264.45	106	250.00	269.97	108	2	70-125	40
Total Xylenes	ND	750.00	694.36	93	750.00	709.34	95	2	70-125	40

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT
Bromofluorobenzene	250.00	267.42	107	250.00	260.09	104	65-135

EMAX QUALITY CONTROL DATA LCS/LCD ANALYSIS

CLIENT:

RCI

PROJECT:

Fort Baker / Project 96-12

'4OD:

EPA 5030A/8020A

IX:

CONTROL NO.:

ACCESSION:

BATCH NO.: SAMPLE ID:

VAL107L/C

LCS2S/LCS2SD

96L035 L036

DATE RECEIVED: NA

DATE EXTRACTED: NA

DATE ANALYZED: 12/11/96

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD %	QC LIMIT	RPD LIMIT
Benzene Toluene Ethylbenzene Total Xylenes	ND ND ND	250.00 250.00 250.00 750.00	264.10 267.32 262.41 686.57	106 107 105 92	250.00 250.00 250.00 750.00	245.26 249.27 245.10 643.61	98 100 98 86	7 7 7 6	70-125 70-125 70-125 70-125	40 40 40 40

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT
Bromofluorobenzene	250.00	264.99	106	250.00	260.29	104	65-135

VOLATILE ORGANIC ANALYSIS

INITIAL CALIBRATION

METHOD: BL06.MTH (8020A) Initial Calibration Date: 6-Dec-96

					v	garage and	
CONCENTRATION,					4-08-1-2-1-2		
ug/L	2	10	50	100	200	Relative	Calibration
Data Filename (L06-)	019R0101	021R0101	022R0101	023R0101	024R0101	Standard	Factor
							'
Analysis Time	18:51	19:40	20:05	20:30	16:05	Deviation	(1/AVE. RF)
	5-						
	RF	RF	RF	RF	RF	(%)	
M-4-4-7-4-D-4-1-54	00000 00	. 0.4540.00		22242.42	à		
Methyl Tert-Butyl Ether	30069.00	34510.30	30828.96	30616.43	28231.86	7%	3.2414E-05
Benzene	82881.50	95538.60	95192.04	9 <i>E</i> 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	94000.00	CO /	4.40045.05
Delizerie	02001.30	93336.00	85182.04	85655.99	81000.00	6%	1.1621E-05
Toluene	75435.50	86883.40	77549.90	77800.85	73500.00	6%	1.2782E-05
				77000.00	7 0000.00	0.0	1.27021-00
Chlorobenzene	73496.00	83392.20	74714.42	75916.92	71000.00	6%	1.3209E-05
Ethylbenzene	70350.00	78267.80	68922.52	68970.24	64500.00	6%	1.4245E-05
m,p-Xylene	85723.00	96511.45	83907.65	104004.38	139473.50	20%	9.8112E-06
		· · · · · · · · · · · · · · · · · · ·					
o-Xylene	64395.50	75094.20	66439.30	67453.06	63500.00	6%	1.4842E-05
1,3-Dichlorobenzene	58899.50	59566.10	57992.30	61281.79	58500.00	2%	1.6878E-05
1,4-Dichlorobenzene	85218.00	85791.20	74463.68	73728.10	68500.00	9%	1.2897E-05
4 O Diebberg		#0#0= ==					
1,2-Dichlorobenzene	55356.50	56565.30	51925.94	51280.45	48546.79	5%	1.8963E-05
Surrogate Parameter	EE000 40	E0007.40	20,400,00	20000 50	22522.05		
Bromoflurobenzene	55088.40	58937.13	62486.28	62600.50	60523.92	5%	1.6687E-05
CONCENTRATION(BFB),	30	40	50	80	400		,
ug/L	3U	40	5 U	OU	100		

ANALYTE	BFB	ICAL	CHK.STD.
Intermediate Standar	S16C-01-69-02	S16C-01-70-01	S16C-01-70-02
Concentration (ppm)	50	50	50
Source	RESTEK	RESTEK	ULTRA

Analyzed By: EAU 12/8/96
Checked By: WTN Fu 12/9/96

EMAX Laboratories, Inc.

8020A QC RESULT

QC SAMPLE	DCC1	DCC2	DCC3	DCC4	DCC5	DCC6
Filename(L11-)	002R0101	013R0101	002R0101 013R0101 024R0101	028R0101	028R0101 040R0101	046R0101
Analytical Batch	VAL097	VAL097	VAL097	VAL097	VAL107	VAL107
Analysis Date	11-Dec-96	11-Dec-96	11-Dec-96 11-Dec-96 11-Dec-96 12-Dec-96 12-Dec-96	11-Dec-96	12-Dec-96	12-Dec-96
Analysis Time	8:51	14:05	18:42	20:22	1:17	3:46

Page 1 of 1				
6L036, 96L035, 96L033	BLOG	S16C-01-70-01	W	
Accession: 961,036,	Calibration Ref.	Standard ID	Analyzed By	

Г		T_	T	T	Т		T	T
	8020A	Recovery (%)			103%	102%	04.00	103%
	DCC6 8020A	Found Value (Hg/L)	5110		51.26	51.05	136.00	51.60
	DCC5 8020A	Recovery (%)	%66 66		%66	%66	%88	110%
	DCCS	Found Value (ug/L)	49.27		49.38	49.31	131.89	55.17
	DCC4 8020A	Recovery (%)	102%		102%	102%	91%	106%
	DCC4	Found Value (ug/L)	51.02	3	27.16	50.85	136.64	52.90
	DCC3 8020A	Recovery (%)	103%	70007	9501	102%	92%	108%
	DCC3	Found Value (ug/L)	51.35	£4 E6	01.00	51.16	137.37	54.06
	DCC2 8020A	Recovery (%)	101%	1010	R	101%	91%	102%
		Found Value (ug/L)	50.41	50 53	20.33	50.37	135.93	51.14
	DCC1 8020A	Recovery (%)	107%	407%	2	107%	%26	103%
-	550	Found Value (ug/L)	53.34	53 53	33	53.26	143.05	51.46
F	I rue value	(ng/L)	20	Ç	3	50	150	50
		ANALYTE	Benzene	Tolliene		Ethylbenzene	m.p.o-Xylene	BFB

18 Dec 96 02:55 PM uence: C:\HPCHEM\1\SEQUENCE\L11.SEQ

Sample Table

Vial Num.	Sample Name	Sample Amount	Multip	Amou		
1 2	DCC! 8020A	· stanted	in Dec	11/960	0820 AM	
3 4 5 6 7 8	VAL097B VAL097L VAL097C L033-02 1.0gm S L033-03 1.0gm S L033-01 5 mL W				/	Le 12/18/96
9 10 11 12	L033-03M 1.0gm S L033-03S 1.0gm S L036-01 5 mL W L036-02 5 mL W					
13 14 15 16	DCC2 8020A L036-03 5 mL W L036-04 5 mL W L036-05 5 mL W					
17 18	L036-06 5 mL W L036-07 5 mL W L036-08 5 mL W L036-09 5 mL W					
22 23 24	L035-01 1.0gm S L035-02 1.0gm S L035-03 1.0gm S DCC3 8020A					
25 26 27 28	L035-04 1.0gm S L035-05 1.0gm S L035-06 1.0gm S DCC4 8020A					
29 30 31 32	VAL107IB VAL107B VAL107L VAL107C					
33 34 35 36	L035-07 1.0gm S L035-08 1.0gm S BLK L035-09 1.0gm S					
37 38 39	L035-10 1.0gm S L035-11 1.0gm S L035-01R 1.0gm S					
40 41 42 43	DCC5 8020A L035-01M 1.0gm S L035-01S 1.0gm S L036-07 5 mL W					
1.14	L036-07M 5 mL W L036-07S 5 mL W DCC6 8020A					

LABORATORY REPORT FOR

RCI

FORT BAKER / PROJECT 96-12

LEAD

SDG#: 96L035

DECEMBER 24, 1996

CASE NARRATIVE

CLIENT:

RCI

PROJECT:

FORT BAKER / PROJECT 96-12

SDG:

96L035

LEAD

Eleven (11) soil samples were received on 12/11/96 to be analyzed for Lead by ICP in accordance with USEPA SW846 (1994).

1. Holding Time

Digestion and analysis met holding time criteria.

2. Blank

A preparation blank was free of contamination.

3. Matrix Spike

Recovery was within QC limit.

4. Duplicate

Duplicate result was out of QC limit.

5. Lab Control Sample/Lab Control Sample Duplicate

Lab control sample results and RPD were within the control limits.

6. Sample Analyses

Sample analyses met QC requirements.

EPA METHOD 3050A/6010A TOTAL LEAD BY ICP

CLIENT: PROJECT: BATCH NO.: MATRIX:	RCI Fort Baker / Project 96 96L035 SOIL	-12 DATE DATE	RECEIVED: EXTRACTED:	======= 12/10/96 12/11/96 12/14/96 12/19/96
				======

SAMPLE ID	CONTROL NO	RESULT (mg/kg)	DL MOIST FACTOR (%)	RL (mg/kg)
T2-N T2-S SP-8 SP-9 SP-10 SP-11 SP-12 PL-11 PL-12 PL-13 QC-3 MBLK1S	L035-01 L035-02 L035-03 L035-04 L035-05 L035-06 L035-07 L035-08 L035-09 L035-10 L035-11 IPL017SB	14.7 67.2 196.5 20.6 36.7 21.4 19.6 18.1 23.7 31.5	1 25.6 1 17.8 1 18.2 1 11.5 1 23.0 1 18.4 1 21.1 1 7.3 1 8.5 1 20.3 1 19.8 1 NA	13.4 12.2 12.2 11.3 12.3 12.7 10.9 12.5 12.5

RL: Reporting Limit

EMAX QUALITY CONTROL DATA MS ANALYSIS

CLIENT: PROJECT: METHOD:

RCI

Fort Baker / Project 96-12 EPA 3050A/6010A SOIL 25.6

MATRIX: MOISTURE:

DATE RECEIVED:
DATE EXTRACTED:
DATE ANALYZED:

12/11/96 12/14/96 12/19/96

BATCH NO.: 96L035 SAMPLE ID: T2-N CONTROL NO.: L035-01

ACCESSION:

96L035

PARAMETER

SMPL RSLT (mg/kg)

SPIKE AMT (mg/kg)

MS RSLT (mg/kg)

QC LIMIT MS % REC

Lead

14.70 134.00

123.00

80 75-125

EMAX QUALITY CONTROL DATA DUPLICATE ANALYSIS

CLIENT: PROJECT: RCI

Fort Baker / Project 96-12 EPA 3050A/6010A

METHOD: MATRIX:

'DISTURE:

SOIL 25.6

BATCH NO.: SAMPLE ID: CONTROL NO.:

96L035 T2-N L035-01 DATE RECEIVED: DATE EXTRACTED: DATE ANALYZED:

12/11/96 12/14/96 12/19/96

ACCESSION:

96L035

SAMPLE

DUP. SAMPLE (mg/kg)

RPD

RPD LIMIT (%)

PARAMETER Lead

14.70

22.00

40L 20

Out of control limit probably due to sample inhomogeneity. L

EMAX QUALITY CONTROL DATA LCS/LCD ANALYSIS

CLIENT:

RCI

PROJECT:

Fort Baker / Project 96-12

METHOD:

EPA 3050A/6010A

MATRIX:

SOIL

ISTURE:

NA

BATCH NO.:

96L035

SAMPLE ID: CONTROL NO .:

IPL017SL/C

LCS1S/LCS1SD

DATE RECEIVED:

NA

DATE EXTRACTED: 12/14/96

DATE ANALYZED:

12/19/96

%

ACCESSION:

96L035

BLNK RSLT SPIKE AMT (mg/kg) (mg/kg)

ND

BS RSLT (mg/kg) 100.00 85.80

BS % REC 86

(mg/kg) 100.00

SPIKE AMT BSD RSLT (mg/kg) 84.30

BSD RPD % REC 84

QC LIMIT RPD LIMIT % 2 75-125

%

20

PARAMETER

Lead

EMAX LABORATORIES, INC., 630 Maple Ave., Torrance, CA 90503 TEL: (310) 618-8889 FAX: (310) 618-0818

ANALYSIS RUN LOG FOR ICP

			·								.96 Time	
Seq.	Lab Sample ID	DF	Analysis	Matrix	Seq.			DF	Analysis	Matrix	Std.	ID
	1W H19H				41	W35	- 07				S1	501B-66.09
2	""" 				42		10				S2	
3	ICB	4_			43		u		•		S3	10
4	1CS ABI				44	W11-	0)				S4	LA
5					45		OL				S5	1
6	CCBI				46						S6	4
7	12017 58				47	ccst					ICV High 1	5018-06.10
8	<u>۶</u> ر	4			48	6011-	03				ICV High 2	NI
9	sc.				49		U3 D				ICV	5010-06.19
10	W45 - 05				50		03 M				ccv	SULK-06.07.
11	050				51		035				ICSA	5010-06.35
12	USM	\perp			52		03	57	0		ICSAB	34.
13	051	54			53	certo	100 AB	FI			CRI	MA
14	6.6				54	Clash	CC46					
15	67				55		CCBS				Comment	s:
16	68				56						***************************************	
17	CWZ				57						Er	COITY
18	ccaz				58							
19	1 PWYO WB				59							
20	WL				60	/						
21	WC				61	/						
22	1042-01				62							
23	20				63				i			
24	6.3				64							
25	1 CO ABF				65							
26	CLU3				66							
27	cc33				67							
28	W35 - 61				68			_				
29	UID				69							
30	UIM				70	1		\dashv			-	
31	611	54			71			\dashv		\dashv		
32					72			十				
33	0.3			 	73			\dashv				
4	०५				74			\dashv		 -		
35	05				75			\dashv				
6	Ος				76	1		\dashv				
7	07			 	77			\dashv		$\overline{}$	_	
8	conk	\top		\dashv	78			\dashv		$\overline{}$	Α	nalyzed By: ARC
9	ceost			 				-				
0	W35-08	\dashv		 	79	1		+			C	Checked By:
	MAXANALYTICAL L			L	80	1,						Date:

# Sample Name	File	Mathad	D = 4 =	*** *			
		Method	Date	Time	OpID	Type	Mode
1 SO	I07L014	MULTI1	12/19/96	21:26			
2 S1	I07L014	MULTI1	12/19/96	21:26		X	IR
3 S2	I07L014	MULTI1	12/19/96	21:33		X	IR
4 \$3	I07L014	MULTI1	12/19/96	21:33		X	IR
5 ICV HIGH1	I07L014	MULTI1	12/19/96		400	X	IR
6 ICV	I07L014	MULTI1	12/19/96	21:42		S	CONC
7 ICB	I07L014	MULTI1	12/19/96	21:47		S	CONC
8 ICSABI	I07L014	MULTI1	12/19/96	21:53		S	CONC
9 CCV1	I07L014	MULTI1	12/19/96	21:56		S	CONC
10 CCB1	I07L014	MULTI1	12/19/96	22:02		S	CONC
11 IPL017SB	I07L014	MULTI1	12/19/96	22:07		S	CONC
12 IPL017SL	I07L014	MULTI1	12/19/96	22:11		S	CONC
13 IPL017SC	I07L014	MULTI1	12/19/96	22:15		S	CONC
14 L045-05	I07L014	MULTI1		22:18		S	CONC
15 L045-05D	I07L014	MULTI1	12/19/96	22:24		S	CONC
16 L045-05M	I07L014	MULTI1	12/19/96 12/19/96	22:27		S	CONC
17 L045-05T	I07L014	MULTI1		22:31		S	CONC
18 L045-06	I07L014	MULTI1	12/19/96	22:36		S	CONC
19 L045-07	I07L014	MULTI1	12/19/96	22:40		S	CONC
20 L045-08	I07L014	MULTI1	12/19/96	22:44		S	CONC
21 CCV2	I07L014	MULTI1	12/19/96	22:47		S	CONC
22 CCB2	IO7L014	MULTI1	12/19/96	22:53		S	CONC
23 IPLO20WB	I07L014		12/19/96	22:58		S	CONC
24 IPLO20WL	IO7L014	MULTI1	12/19/96	23:02		S	CONC
25 IPLO20WC	I07L014	MULTI1	12/19/96	23:06		S	CONC
26 L042-01	IO7L014	MULTI1	12/19/96	23:09		S	CONC
27 L042-02	IO7L014	MULTI1	12/19/96	23:15		S	CONC
28 L042-03	IO7L014	MULTI1	12/19/96	23:18		S	CONC
29 ICSABF	107L014 107L014	MULTI1	12/19/96	23:22		S	CONC
30 CCA3	107L014 107L014	MULTI1	12/19/96	23:27		S	CONC
31 CCB3	107L014 107L014	MULTI1	12/19/96	23:32		S	CONC
32 L035-01	107L014	MULTI1	12/19/96	23:37		S	CONC
33 L035-01D	I07L014	MULTI1	12/19/96	23:41		S	CONC
34 L035-01M	I07L014	MULTI1	12/19/96	23:45		S	CONC
35 L035-01T	I07L014	MULTI1	12/19/96	23:48			CONC
36 L035-02	I07L014	MULTI1	12/19/96	23:54			CONC
37 L035-03	107L014 107L014	MULTI1	12/19/96	23:58			CONC
38 L035-04	107L014 107L014	MULTI1	12/20/96	00:01			CONC
39 L035-05	I07L014	MULTI1	12/20/96	00:05			CONC
40 L035-06	107L014 107L014	MULTI1	12/20/96	00:09			CONC
41 L035-07	I07L014	MULTI1	12/20/96	00:12			CONC
42 CCV4	107L014	MULTI1	12/20/96	00:16			CONC
43 CCB4	I07L014	MULTI1	12/20/96	00:21			CONC
44 L035-08	I07L014	MULTI1	12/20/96	00:27			CONC
45 L035-09	I07L014	MULTI1 MULTI1	12/20/96	00:31			CONC
46 L035-10	I07L014	MULTI1	12/20/96	00:34			CONC
47 L035-11	I07L014		12/20/96 12/20/96	00:38			CONC
48 L011-01	I07L014		12/20/96	00:42			CONC
49 L011-02	107L014 107L014		12/20/96	00:45			CONC
50 CCV5	I07L014		12/20/96	00:49			CONC
51 CC85	107L014 107L014		12/20/96	01:00			CONC
52 L011-03	I07L014		12/20/96	01:00			CONC
53 L011-03D	I07L014		12/20/96	01:03			CONC
	/	1101111	16/60/70	01.0/	HDC (s n	CONC
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Analysis Report	Summary		Fri 12-20-	96 11:	11:48	AM	page
# Sample Name	-File	Method	Date	Time	OpID	Туре	Mode
, , , , , , , , , , , , , , , , , , , 							
54 L011-03M 55 L011-03S 56 L011-03T 57 ICSABF 58 CCV5 59 CCB5 60 Blank	IO7L014 IO7L014 IO7L014 IO7L014 IO7L014 IO7L014	MULTI1 MULTI1 MULTI1 MULTI1 MULTI1 MULTI1 MULTI1	12/20/96 12/20/96 12/20/96 12/20/96 12/20/96 12/20/96 12/20/96	01:11 01:15 01:20 01:25 01:31 01:36 01:40	ABC ABC ABC ABC ABC	\$ \$ \$ \$ \$ \$ \$ \$ B	CONC CONC CONC CONC CONC

CONC

#	Sample Name			Sb	As	Ba	Be	В
1	so		.141	.00499	.003	0005		
	S1		5.0325	.8255	.53399	0005	.0265	.004
	S2		7.67249		.82299			
	S 3		10.186	1.6675	1.069	11.006	16.854	2.205
	ICV HIGH1		10.05	1.947	2.031	14.3375 1.956		2.9075
	ICV		4.930	1.040	1.027	.9878	1.941	1.968
	ICB		0061	0234	0545	0001	.9878	1.015
	ICSABI		505.2	.9771	2.079	.4609	.0001	.0034
	CCV1		7.335	1.460	1.484	1.475	.4566 1.458	.5070
10	CCB1		0005	.0126	0066	.0002	.0000	1.478
11	IPL017SB		.3498	8995	-5.544	.0186	.0068	.0027
12	IPL017SL		917.8	454.3	91.00	97.65	91.42	2.220 109.5
13	IPL017SC		903.4	452.2	84.07	96.12	90.01	110.2
14	L045-05		1700.	.9498	1.393	57.58	.1297	2.853
	L045-05D		1701.	7816	1.206	53.38	.1232	2.862
	L045-05M		2641.	368.0	84.74		81.06	89.76
17	L045-05T		391.9	-2.147	-2.328	12.95	.0251	.8019
18	L045-06		1006.	4391	-2.809		.0637	2.076
	L045-07		885.9	-1.626	-1.325	24.42	.0637	3.003
	L045-08		937.2	.2911	-2.996	34.32	.0642	1.758
	CCV2		7.189	1.432	1.414		1.422	1.453
	CCB2		0037	.0023	0197	.0000	.0000	.0010
	IPL020WB		0126	0011	0206	.0002	0001	.0017
	IPL020WL		H17.81	H8.937	H1.708	H1.748	H1.765	H1.795
	IPL020WC		H17.65	H8.885	H1.703	H1.735	H1.733	H1 809
	L042-01		.1338	.0062	.0243	.0447	.0002	.2210
	L042-02		.3886	0071	0033	.0450	.0010	.2235
	L042-03		.1321	.0210	0133	.0000	0001	.0051
	ICSABF		488.2	.9153	1.808	.4480	.4236	.4842
	CCA3		7.233	1.417	L1.334	1.438	1.363	1.417
	CCB3		.0055	.0156	0536	.0006	.0004	.0003
	L035-01		18790.	.5914	-4.875	62.78	.1952	1.642
	L035-01D		14110.	.1707	3.202	65.78	.1466	1.184
	L035-01M		18630.	227.5	68.70	158.5	78.51	80.24
	L035-01T		20930.	4424	8.870	71.32	.1760	1.715
	L035-02		14210.	4.426	2757	50.87	.1303	2.778
	L035-03		12030.	2.828	3.987	37.54	.1154	3.072
	L035-04 L035-05		13820.	-4.034	1.023	42.91	.1085	4.333
	L035-06		14390.	2.715	2.192	45.57	.1363	4.176
	L035-07		14890.	-3.118	3.275	58.46	.1341	3.277
	CCV4		12020.	.5471	5.137	41.12	.1050	2.275
	CCB4		7.181 .0040	1.390	1.447	1.468	1.374	1.433
	L035-08		3676.	0076 .4861	.0047	.0009	.0001	.0024
	L035-09		8127.	.2134	2.581	147.7	.0816	3.746
	L035-10		8854.	-2.447	2.296 -2.757	200.9	.1393	4.282
	L035-11		16020.	-2.530	1.895	204.7 56.40	.1272	4.674
	L011-01		.0999	.0083	0274	.1094	.1460	3.194
	L011-02		.0146	.0063	.0084	.0848	0002 0002	.9411 .0974
	CCV5	•	7.058	1.369	1.358		L1.336	1.413
	CCB5		0217	0166	.0292	.0004	0001	.0003
	L011-03		0123	.0009	0159	.6114	0001	1.241
53	L011-03D		0438	0165	0206	.6059	0002	
				• •				D1-344

±	Sample Name	A.1	6 1				
		Al	Sb	AS	Ba 	Be	B
	L011-03M	17.82	8.547	1.518	2.218	1.568	2.007
	L011-03S	15.80			2.014	1.391	2.886
6	L011-03T	109			.6832	.0052	2.652
7	ICSABF		.9030		.4462	L.3985	1.347
8	CCV5	7.244			1.456	L1.311	.4584
9	CCB5		2 .0023		.0003	0000	1.402
0	Blank	001			.0006	.0000	.0010 .0028
	Sample Name	Cd	Ca	Cr	Со	Cu	Fe
_							***************************************
1 2	S0 .	.0044				.00099	.0049
	\$2	1.775			2.9735	1.68799	8.926
	52 S3	2.646					
	SS ICV HIGH1	3.5	127.52				17.63
	ICV HIGHT	1.981			1.956	1.976	9.894
	ICB	.9755			.9654	.9810	4.943
	ICSABI	001			.0034	.0021	.0012
	CCV1	1.035			.4589	.5045	186.0
	CCB1	1.469			1.456	1.479	7.267
	IPL017SB	000			.0023	.0018	.0010
	IPL0175B IPL017SL	052			.5251	1.673	.9146
	IPL017SC	92.01	4198.		87.52	100.5	913.1
	_045-05	91.20			86.72	98.61	902.6
	_045-05 _045-05D	.0624			2.175	4.339	3465.
	_045-05M	1686			2.183	10.81	3166.
	_045-05M	83.73			79.78	93.63	3615.
	_045-051	180			.3833	.9409	829.0
	_045-06 _045-07	0398			1.147	3.196	1845.
	_045-07 _045-08	.0843			1.193	6.065	2186.
		029:		2.588	1.265	2.142	2357.
	CCV2	1.463	70.38	1.412	1.413	1.449	7.077
	CCB2	000			.0049	.0033	.0041
	IPL020WB	0014			.0002	0003	.0012
	IPLO20WL	H1.765		H1.682	H1.668	H1.764	H16.99
	[PL020WC	H1.734	H87.40	H1.684	H1.641	H1.752	H16.86
	-042-01 -042-02	0020		0041	.0204	0011	22.71
	-042-02 -042-03	0031		0027	.0097	0043	41.60
	CSABF	0004		0008	.0014	.0003	.0320
	CCABE	.9946		.4330	.4181	.4980	172.1
		1.421	L66.98	L1.335	L1.340	1.427	6.865
	CB3	.0017	0056	.0031	0001	.0018	.0122
	.035-01	.0812	6994.	45.31	26.17	40.74	38290
	.035-01D	1400		53.64	27.30	40.33	37920
	.035-01M	86.45	7902.	137.2	106.6	149.6	41000
	.035-01T	.2409	8489.	53.90	31.89	40.32	48450
	.035-02	.1194	6686.	29.53	27.68	35.65	35580
	.035-03	2134		24.89	18.68	34.84	28360
	.035-04	1509		29.43	21.32	38.27	34620
	.035-05	0000		33.84	20.28	36.16	36950
	.035-06	0469		34.34	23.25	56.22	37930
	.035-07	3347		21.32	20.22	28.17	26590
	CCV4 CCB4	1.432 0007		L1.336	L1.332	1.437 .0021 01	6.911
			70452	.0049	.0028		0.0272

Analysis Report	Averages		Fri 12-20	-96 11:1	1:48 AM	page 5
# Sample Name	Cd	Ca	Cr	Co	Cu	Fe
44 L035-08	.1565	2173.	6.927	5.202	28.47	14670
45 L035-09	.2397	4623.	11.90	12.67		14670.
46 L035-10	.2531	5507.	15.24	13.18	52.60 50.29	27930.
47 L035-11	.0958	7614.	39.24	27.56		26780.
48 L011-01	0013	154.2	- 0037	0011	48.82 .0018	38660.
49 L011-02	0022	37.08	.0056	.0032		.1537
50 CCV5	1.408	L65.40	L1.284		.0030	.0893
51 CCB5	0028	0590	0005	L1.290	1.412	L6.677
52 L011-03	0015	178.9	.0005	.0013	.0006	.0092
53 L011-03D	.0003	202.5		.0022	.0015	.0212
54 L011-03M	1.712	251.1	0151	.0013	.0003	.0120
55 L011-03S	1.519	234.7	1.478	1.484	1.733	15.28
56 L011-03T	.0003	234.7 187.8	1.311	1.329	1.530	13.62
57 ICSABF	.9663		0076	.0107	.0119	.0957
58 CCV5		443.4	L.3991	L.3928	.4907	161.8
59 CCB5	1.382	L63.33	L1.247	L1.251	1.419	L6.575
60 Blank	0010	0535	0001	.0014	.0009	.0029
	0006	0108	.0024	0013	.0009	1.189
# Sample Name	Pb	Mg	Mn	Мо	Ni	Κ

1 50	00449		.002	.00249	02199	.5625
2 \$1	1.46199			.281	2.16249	
3 \$2	2.08799			.4275	3.1675	23.612
4 \$3	2.7915	45.2265	6.1875	.55949	4.19849	29.855
5 ICV HIGH1	1.989	99.91	1.960	1.971	1.960	101.7
6 ICV	.9667	49.08	.9776	.9693	.9683	51.75
7 ICB	.0020	0190	.0002	0053	.0034	.0014
8 ICSABI	1.083	458.4	.5337	.9604	.9161	58.86
9 CCV1	1.473	73.48	1.447	1.457	1.457	73.11
10 CCB1	.0318	0036	0001	0089	.0079	1645
11 IPL017SB	2.757	1336	.0556	7130	.0827	22.16
12 IPL017SL	85.82	4472.	87.68	93.40	87.82	4642.
13 IPL017SC	84.35	4401.	86.44	92.33	84.76	4648.
14 L045-05	2.231	2292.	101.8	2689	3.889	420.8
15 L045-05D	4.930	2262.	106.7	4712	2.908	393.8
16 L045-05M	81.05	5651.	152.1	80.40	80.32	4626.
17 L045-05T	-1.973	535.3	24.55	-1.364	.9017	112.7
18 L045-06	1.771	1508.	76.81	0366	2.067	261.6
19 L045-07	5.068	1119.	51.88	3674	3.051	214.0
20 L045-08	2.810	1241.	63.43	.1826	2.232	234.5
21 CCV2	1.414	72.99	1.412	1.412	1.414	72.09
22 CCB2	.0058	.0154	.0001	.0000	.0039	.4281
23 IPLO20WB	.0205	0080	0006	0089	.0037	.0759
24 IPLO20WL	H1.704	H90.44		H1.780		H90.58
25 IPL020WC	H1.680	H91.29	H1.661	H1.775	H1.646	H91.81
26 L042-01	0157	44.04	1.865	0125	.0333	13.04
27 L042-02	0034	30.05	1.653	0092	.0206	6.195
28 L042-03	.0121	0034	.0012	.0000	0078	5201
29 ICSABF	.9744	440.7	.4958	.9129	.8545	56.99
30 CCV3	1.374	71.79	L1.348	L1.346	L1.347	74.23
31 CCB3	.0090	.0319	.0004	0036	.0013	2763
32 L035-01	10.90	8490.	797.8	-3.813	29.19	136.6
33 L035-01D	16.42	7374.	891.2	-2.593	26.60	125.8
					A 4 4	

Ana	lysis Report	Averages		Fri 12-20)-96 11:11	L:48 AM	page
#	Sample Name	- Pb	Mg 	Mn	Mo	Ni	K
31	L02501M						
	L035-01M	91.15	· · · · · · · · · · · · · · · · · · ·	1164.	68.47	107.6	4623.
	L035-01T	33.27	10260.	950.6	-6.939	30.73	-78.0
	L035-02	55.23	8131.	1018.	-2.425	25.48	127.8
	L035-03	15.67	6310.	661.7	8337	18.77	137.1
	L035-04	14.58	7032.	790.6	-3.922	21.23	145.8
	L035-05	15.83	7317.	751.2	-2.133		146.4
	L035-06	29.97	7318.	883.5	-3.140	23.77	
	L035-07	16.88	6962.	732.9	-1.686	19.62	337.3 130.9
	CCV4	1.396	72.24	1.359	L1.346	1.382	76.00
	CCB4	.0023	.0197	.0010	0053	.0048	
	L035-08	18.19	1663.	2040.	.2500	10.25	3655
	L035-09	16.60	3656.	2400.	8629	15.36	224.5
	L035-10	18.89	4213.	2573.	5965	19.11	397.6
47	L035-11	25.29	8419.	998.5	-2.007	28.30	398.2
	L011-01	.0055	55.73	3.414	- 0053	0053	215.2
	L011-02	.0161	22.43	0106	.0125	0034	8.041
50	CCV5	1.360	70.41	L1.320	L1.292		1.574
51	CCB5	.0090	0036	.0006	0089	1.357 .0034	78.50
52	L011-03	.0325	67.81	2.184	0018		266
53	L011-03D	.0037	72.66	2.411	0125	0001	7.767
54	L011-03M	1.627	149.1	3.580		0038	7.967
55	L011-03S	1.504	137.8	3.320	1.573 1.411		105.2
56	L011-03T	.1958	73.36	2.370	0089	1.372	94.54
	ICSABF	.9468	429.1	.4735		0122	8.338
	CCV5	L1.338	70.75	L1.283	.8371	.8178	64.66
59	CCB5	.0044	0112	.0001	L1.271	L1.329	H83.87
60	Blank	.0335	.0243	.0105	0036 .0001	0029	.1877
				.0100	.0001	.0062	476
#	Sample Name	Se	Ag	Na 	Sr	T1	Sn
4	60						
	S0	02349		.04699	.2985	00599	007
2		.583	2.7525	4.17399	18.678	.6725	1.362
	\$2	.85749	4.162	6.616	28.1375	1.0605	2.043
	\$3	1.13849		8.25149	36.744	1.364	2.733
	ICV HIGH1	1.920	1.988	99.92	1.961	2.010	9.935
	ICV	.9954	.9777	53.62	.9851	.9876	4.805
	ICB ICSABI	.0651	0036	0049	0007	0015	.0164
		3.515	.9478	56.38	.4641	4.452	.9279
	CCV1	1.438	1.479	73.94	1.470	1.499	7.294
	CCB1	.0167	0058	0109	0007	.0059	.0493
	IPL017SB	4.346	.2923	.1012	1235	3.444	7.662
	IPL017SL	185.5	89.80	4995.	95.87	176.0	89.75
	IPL017SC	179.0	88.79	4932.	94.14	177.3	87.19
	L045-05	-6.158	-1.741	732.9	40.72	16.43	1.029
	L045-05D	-4.645	-1.483	722.8	42.20	11.84	2.940
	L045-05M	160.7	81.07	4910.	112.8	168.5	76.74
	L045-05T	5.588	5485	160.1	9.187	2.355	5.674
	L045-06	-2.242	-1.238	364.1	25.63	12.08	9.775
	L045-07	1.054	-1.371	315.4	17.21	5.607	3.090
	L045-08	-3.441	-1.443	266.6	21.71	7.335	4.239
	CCV2	L1.336	1.469	71.93	1.448	1.444	7.022
	CCB2	.0535	.0007	0228	0010	0279	.0274
23	IPL020WB	.0191	0051	.0010	0010	0418G	
						- U.	14
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	Analysis Report Av	erages		Fri 12-20	-96 11:11	:48 AM	page 7
·	# Sample Name	Se 	Ag	Na 	Sr	T1	Sn
	24 IPL020WL 25 IPL020WC 26 L042-01 27 L042-02 28 L042-03 29 ICSABF 30 CCV3 31 CCB3 32 L035-01 33 L035-01D 34 L035-01M 35 L035-01T 36 L035-02 37 L035-03 38 L035-04 39 L035-05 40 L035-06 41 L035-07 42 CCV4 43 CCB4 44 L035-09 46 L035-10 47 L035-11 48 L011-01 49 L011-02 50 CCV5 51 CCB5 52 L011-03 53 L011-03D 54 L011-03M 55 L011-03M 55 L011-03T 57 ICSABF 58 CCV5 59 CCB5 60 Blank	H3.331 H3.31001280288 .0033 L3.178 L1.340 .0543 -99.49 -92.37 21.02 -87.34 -86.99 -63.29 -87.79 -89.83 -91.85 -68.00 L1.340 .0259 -34.67 -67.94 -65.45 -98.91 .0093 .0151 L1.320 .0075 .01750001 .6639 .5100 .3554 L2.841 L1.220 .0736 .0723	-13.70 72.27 -19.11 -13.03 -10.78 -13.06 -13.89 -14.58 -9.568 1.449 .0013 -5.087 -9.462 -14.5703040108 1.426007303140355 .9035	H88.89 H90.39 106.4 133.1 .3817 54.76 71.88 0109 242.8 190.4 4549.1 218.4 152.4 152.4 152.4 179.1 198.8 73.06 028 95.27 179.1 190.4 205.9 245.3 73.90 028 73.90 73	2.378 .4440 1.426 0013	3.971 L1.302 .0162	H1.736 H1.723 .0300 .0187 .0366 .8729 6.810 .0183 -2.032 -4.368 68.91 22.90 1.087 2.295 3.706 .3688 1.409 4.896 6.799 .0456 7.642 2.473 1.351 .0256 .0438 L6.622 .0712 .0365 .0237 1.465 .0237 1.465 .0258 L6.478 .0368
	# Sample Name	Ti	V	Zn			
000-	1 S0 2 S1 3 S2 4 S3 5 ICV HIGH1 6 ICV 7 ICB 8 ICSABI 9 CCV1 10 CCB1 11 IPL017SB 12 IPL017SC		1.40499 1.85299 1.967 .9829 .0029 .4672 1.455 .0012	5.88949 8.696 11.4715 1.967 .9689			013

#	Sample Name	_ Ti	V	Zn
14	L045-05	40	***************************************	
	L045-05D	43.26	5.887	10.30
	L045-05M	48.62	5.208	11.38
	L045-05T	123.1	84.39	90.56
	L045-06	10.15	1.333	1.789
	L045-07	15.25	3.075	6.528
	L045-08	26.60	4.341	6.539
	CCV2	24.95	4.209	6.048
	CCB2	1.422	1.424	1.423
	IPL020WB	.0004	.0041	0034
24	IPL020WL	.0006	0004	
	IPL020WC	H1.742	H1.685	H1.689
	L042-01	H1.745	H1.656	H1.656
	L042-02	0036	.0005	.0347
	L042-03	0028	.0001	.0391
29	ICSABF	.0015	.0010	0087
	CCA3	.8518	.4309	.9001
	CCB3	1.375	1.368	1.354
	L035-01	.0006	0002	0065
	L035-01D	482.2	135.6	64.30
	L035-01M	504.3	153.5	68.89
	L035-01T	740.7	247.4	157.2
	L035-02	559.1	158.6	69.12
	L035-03	767.4 803.1	121.0	77.79
	L035-04	1202.	103.5	52.31
	L035-05	1406.	126.0	68.50
	L035-06	1243.	134.7	72.71
	L035-07	592.5	144.2	94.16
	CCV4	1.383	96.24	47.49
	CCB4	.0015	1.375	1.356
	_035-08	450.6	.0029	0076
45 (_035-09	775.4	32.50	20.37
	_035-10	916.5	68.47	47.26
	_035-11	1062.	66.82	43.09
48 L	-011-01	.0005	143.4	84.32
49 L	-011-02	.0037	.0023	.0115
50 0	CCV5	1.353	L1.336	.0158
51 (CCB5	.0015	0009	L1.310
	.011-03	0029	.0040	0074
	.011-03D	0051	.0010	.0166
	.011-03M	1.595	1.534	.0160
	.011-035	1.424	1.369	1.551 1.379
	.011-03T	0073	.0122	0091
	CSABF	.8144	.4066	.8364
	CV5	L1.331	L1.302	.8364 L1.278
	CB5	.0008	.0019	0080
60 B	lank	.0030	.0010	0056
				.0000

DIGESTION LOG FOR ICP METALS

Prep. Batch	± PI	1017	<u>S</u>	Method	3005 E	3010 🗆	30	250/2	CLP [Book	# T-E08-001	Page #	
Prep. Batch Matrix	foil			Starting	Date /2//4/8		Time		10.00			Ending Date	12/14/96 Time		16:0
Lab		Matrix			Sample	·	Extract		Digestate			Standards	ID	Amount A	Added (ml)
Sample		Description			Amount	рН	Volume		Description				SO1A-06030		
ID		Color	Texture / Clarity	Artifacts	(g/m i)		(mi)		Color	Clarity	K	мѕ	SO1A -0604	or i	<i>U</i> !
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Sc					_				x			Reagent	L	ot# / ID	
96 LOY	9-01											HNO₃	118	080	
FY12/14	-02								-			HCI	41.	6040	
961035-01					1.00							H₂O₂	1202 H157 KPD4		
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-04						·						SDG#	Extract Location		
-05]		IEILAD		
	- 06														
	-07											Legend:			
	-08											Color	Texture	Clarity	Artifacts
	-08											Bu = Blue Bi = Black	Cs = Coarse	Cr = Clear	Rk = Rocks
	-10		_									Bn = Brown Gn = Green	Md = Medium	Cy = Cloudy	Si = Shale
	~ //									-	ĺ	Bn = Brown Gn = Green	Fn = Fine	Td = Turbid	Vg = Vegetation
961045	5-05											Og = Orange Rd = Red Yw = Yellow			
- 0	soup											Comments:			<u> </u>
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962035-0124 -01M					1.00		10	70					Prepared Rv	Þ	y
-01M					d		d	· · · · · · · · · · · · · · · · · · ·	X		1	Qt-	andard Added Rv	F	1/4/
							U				1	34	Prepared By: andard Added By: Checked By:	l	11
													acts Received By		

EMAXANALYTICAL LABORATORIES INC., 630 Mobile Ave., Torronce, CA 90503 TEL: (310) 618-8889 FAX: (310) 618-0818